

S
388.11
H3Cn2
1967

ESTIMATE OF THE COST OF
COMPLETING THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS
IN THE STATE OF MONTANA

JULY 1, 1957

PREPARED BY THE MONTANA HIGHWAY DEPARTMENT
IN COOPERATION WITH THE BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE
IN ACCORDANCE WITH
SECTION 108(6) OF THE FEDERAL-AID HIGHWAY ACT OF 1956



STATE DOCUMENTS

MONTANA STATE LIBRARY
930 East Lyndale Avenue
Helena, Montana 59601



MONTANA
INTERSTATE ROUTES
IN 40,000 MILE SYSTEM AS APPROVED
AUG. 2, 1947 AND SEPT. 15, 1955

TABLE A
APPROVED F.A.I. ROUTE DESCRIPTIONS

State MONTANA

Route Number	Route Description	Length Miles
101	From the Montana-Idaho State line at Lookout Pass via Missoula, Butte, Bozeman Pass, Billings and Glendive to the Montana-North Dakota State line near Beach, North Dakota.	702.7
102.	From the Montana-Idaho State line at Monida Pass via Butte, Helena and Great Falls to the international boundary at Sweetgrass.	387.1
103.	From the Montana-Wyoming State line northwest of Sheridan, Wyoming, to Billings.	102.1
104.	From FAI Route 101 west of Butte to Butte.	1.1
105.	From FAI Route 102 southwest of Great Falls to Great Falls.	1.0

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 2 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	A18-A19	A19-A20	A20-A21	A21-A22	A22-A23	A23-A24	A24-A25	A25-A26	A26-A27	A27-A28	A28-A29	A29-A30	A30-A31	A31-A32	A32-A33	A33-A34	A34-A35
1. Section length, miles	1.7	0.2	1.4	1.4	5.1	4.5	9.4	2.3	1.5	8.0	5.5	10.8	5.7	5.8	5.6	2.6	4.2
2. Class - rural or urban	R	R	R	R	R	R	R	U	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	N	N	N	E	N	E	N	N	N	N	E	E	E	N	N	E	N
4. Traffic: ADT 1955	1326	1326	1326	1500	1550	1600	2500	2500	3000	2500	2562	2068	1940	1800	1800	2045	1922
5. Traffic: ADT 1975	3600	3600	3600	4000	4200	4300	8300	8500	9600	6700	6900	5600	5200	4800	4800	5500	5600
6. Traffic: DHV 1975	470	470	470	520	550	560	1080	1110	1250	870	900	730	680	630	630	720	730
7. Directional distribution factor (D), 1975	55	55	55	55	-	55	55	60	60	55	55	55	55	55	55	55	55
8. Percent trucks (T), 1975	10	10	10	10	10	10	10	10	13	13	13	13	13	13	13	13	10
9. Design speed (V)	50	50	50	50	60	60	60	50	60	60	50	50	50	50	50	50	60
10. Number of through traffic lanes	4	4	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4
11. Mileage without frontage roads	1.3	0.2	1.4	0.8	2.5	3.7	7.7	2.3	1.5	7.0	3.2	10.8	5.1	0.4	5.2	1.0	4.0
12. Mileage with frontage road one side only	0.4	-	-	0.6	2.6	0.8	1.7	-	-	1.0	2.3	-	0.6	5.0	0.4	1.6	0.2
13. Mileage with frontage road on both sides	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-
14. Typical cross section reference	43	62	43	43	20	50	50	56	56	56	43	43	43	43	43	43	40

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 3 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	A35-A36	A36-A37	A37-A38	A38-B1	B1-B2	B2-B3	B3-B4	B4-B5	B5-B6	B6-B7	B7-B8	B8-B9	B9-B10	B10-B11	B11-B12	B12-B13	B13-B14
1. Section length, miles	4.2	6.5	5.6	1.6	4.8	8.8	3.4	3.1	6.9	3.6	3.6	1.6	7.0	3.9	3.5	7.0	7.1
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	U	R	R
3. Location - existing, new or toll	E	E	E	N	E	N	N	N	N	E	N	N	E	E	N	N	N
4. Traffic: ADT 1955	1976	1935	1992	2018	1596	1515	1850	1865	1865	1178	2685	2685	3209	4817	2650	1645	1645
5. Traffic: ADT 1975	5300	5200	5400	5400	4300	4400	5000	5000	5000	3200	7200	7200	8600	13000	9100	4400	4400
6. Traffic: DHV 1975	690	680	700	700	550	560	640	640	640	410	920	920	1100	1660	910	560	560
7. Directional distribution factor (D), 1975	55	55	55	55	-	-	-	-	-	-	55	55	55	55	60	55	55
8. Percent trucks (T), 1975	10	10	10	10	11	11	11	11	11	11	10	10	10	10	10	10	10
9. Design speed (V)	60	60	60	60	60	70	70	70	70	70	60	60	60	60	50	50	50
10. Number of through traffic lanes	4	4	4	4	2	2	2	2	2	2	4	4	4	4	4	4	4
11. Mileage without frontage roads	3.2	5.3	4.6	1.6	3.5	6.4	2.5	0.9	6.3	3.3	3.6	1.6	5.3	3.9	3.5	6.1	7.1
12. Mileage with frontage road one side only	1.0	1.0	0.6	-	1.3	2.4	0.7	2.0	0.6	0.3	-	-	1.3	-	-	0.9	-
13. Mileage with frontage road on both sides	-	0.2	0.4	-	-	-	0.2	0.2	-	-	-	-	0.4	-	-	-	-
14. Typical cross section reference	40	40	40	40	20	20	20	20	20	20	40	40	40	40	52	49	49

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 4 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	B14-B15	B15-B16	B16-B17	B17-B18	B18-C1	C1-C2	C2-C3	C3-C4	C4-C5	C5-C6	C6-C7	C7-C8	C8-C9	C9-C10	C10-C11	C11-C12	C12-C13
1. Section length, miles	9.3	3.5	2.9	10.8	3.8	2.3	3.7	10.8	10.3	9.1	1.0	5.6	6.8	5.1	3.6	2.2	0.8
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	U	R	R	R	R	R	U
3. Location - existing, new or toll	N	N	E	N	N	N	N	N	N	N	N	N	E	E	E	N	N
4. Traffic: ADT 1955	1375	1400	1480	1050	1050	1050	1900	1870	1950	2450	1735	1975	1975	1975	1975	2100	2100
5. Traffic: ADT 1975	3700	4100	4000	2800	2800	2800	5900	5800	6000	7600	5800	5900	5900	5900	5900	6200	6700
6. Traffic: DHV 1975	470	520	510	360	360	360	700	690	720	910	690	700	700	700	700	740	770
7. Directional distribution factor (D), 1975	55	-	-	55	-	-	55	55	55	55	60	55	55	55	55	55	60
8. Percent trucks (T), 1975	10	18	18	18	18	18	12	12	12	12	10	13	13	13	13	13	13
9. Design speed (V)	60	60	60	50	60	60	60	60	70	70	50	60	50	50	60	60	50
10. Number of through traffic lanes	4	2	2	4	2	2	4	4	4	4	4	4	4	4	4	4	4
11. Mileage without frontage roads	7.7	3.3	0.8	7.6	2.4	-	1.5	10.6	7.7	5.9	0.6	2.1	5.2	2.8	2.0	1.8	0.8
12. Mileage with frontage road one side only	1.6	0.2	2.1	2.9	1.4	2.3	0.8	0.2	2.6	3.2	0.4	3.5	1.6	1.9	0.7	0.4	-
13. Mileage with frontage road on both sides	-	-	-	0.3	-	-	1.4	-	-	-	-	-	-	0.4	0.9	-	-
14. Typical cross section reference	40	20	20	43	20	20	50	50	50	50	50	50	43	43	40	50	56

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 5 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	C13-C14	C14-C15	C15-D1	D1-D2	D2-D3	D3-D4	D4-D5	D5-D6	D6-D7	D7-D8	D8-D9	D9-D10	D10-D11	D11-D12	D12-D13	D13-D14	D14-D15
1. Section length, miles	2.4	5.3	13.2	13.6	3.5	8.6	11.4	4.8	3.1	8.2	7.8	9.5	5.5	6.1	3.6	8.8	4.6
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	N	N	E	E	N	E	E	E	N	E	N	N	N	N	N	E	N
4. Traffic: ADT 1955	2217	2217	1476	1301	1544	1421	1285	1250	1269	1384	1470	1558	1915	1915	3465	4150	4060
5. Traffic: ADT 1975	6400	6400	4000	3500	4500	3800	3500	3400	3400	3700	4000	4200	6600	6600	11900	14200	13900
6. Traffic: DHV 1975	760	760	480	420	540	450	420	410	410	440	480	500	790	790	1420	1690	1660
7. Directional distribution factor (D), 1975	55	55	-	-	-	-	-	-	55	-	55	-	55	55	55	55	60
8. Percent trucks (T), 1975	11	11	12	12	13	15	15	15	15	15	15	15	13	13	13	13	13
9. Design speed (V)	60	60	70	70	70	70	70	60	60	60	60	70	70	70	70	70	70
10. Number of through traffic lanes	4	4	2	2	2	2	2	2	4	2	4	2	4	4	4	4	4
11. Mileage without frontage roads	2.0	5.1	12.5	12.4	3.5	5.8	8.0	3.8	3.1	7.6	6.4	9.5	3.4	3.4	2.0	0.6	2.9
12. Mileage with frontage road one side only	0.4	0.2	0.7	0.9	-	1.6	3.0	1.0	-	0.6	1.0	-	2.0	2.6	1.1	8.2	1.7
13. Mileage with frontage road on both sides	-	-	-	0.3	-	1.2	0.4	-	-	-	0.4	-	0.1	0.1	0.5	-	-
14. Typical cross section reference	56	50	20	20	20	20	20	20	43	20	40	20	50	50	50	50	50

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 6 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	D15-D16	D16-D17	D17-D18	D18-D19	D19-D20	D20-D21	D21-D22	D22-D23	D23-D24	D24-D25	D25-D26	D26-D27	D27-E1	E1-E2	E2-E3	E3-E4	E4-E5
1. Section length, miles	3.6	6.8	9.1	9.6	6.8	5.3	8.0	6.1	1.8	1.3	6.9	6.4	8.7	7.1	7.9	2.4	3.7
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	N	N	N	N	E	E	E	N	N	N	N	N	N	E	E	N	N
4. Traffic: ADT 1955	4200	2000	1600	1300	1234	1234	1240	980	980	980	980	1160	1075	1075	1075	1600	1250
5. Traffic: ADT 1975	14600	6900	5600	4500	3700	3700	3700	2600	2600	2600	2600	3100	2900	2900	2900	4300	3400
6. Traffic: DMV 1975	1740	820	660	530	440	440	440	310	310	310	310	370	340	340	340	510	400
7. Directional distribution factor (D), 1975	60	55	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-
8. Percent trucks (T), 1975	15	15	15	15	15	15	15	13	13	13	13	13	14	14	14	14	10
9. Design speed (V)	70	60	70	70	70	70	70	60	60	60	60	70	70	70	70	60	60
10. Number of through traffic lanes	4	4	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2
11. Mileage without frontage roads	3.3	6.6	9.1	8.7	5.1	5.1	7.5	5.3	1.8	1.3	5.8	6.4	7.9	7.0	5.4	2.2	3.7
12. Mileage with frontage road one side only	0.3	0.2	-	0.9	1.5	0.2	0.5	0.8	-	-	1.1	-	0.8	0.1	1.7	-	-
13. Mileage with frontage road on both sides	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	0.8	0.2	-
14. Typical cross section reference	50	40	20	20	20	20	20	20	20	40	20	20	20	20	20	20	20

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 7 of 16STATE MONTANAFAI ROUTE NUMBER 101

Item	ROUTE SECTION																
	E5-E6	E6-E7	E7-E8	E8-E9	E9-E10	E10-E11	E11-E12	E12-E13	E13-E14	E14-E15	E15-F1	F1-F2	F2-F3	F3-F4	F4-F5	F5-F6	F6-F7
1. Section length, miles	8.3	7.5	5.9	6.5	7.8	1.5	3.5	5.9	2.4	5.1	8.2	7.2	2.7	1.6	5.5	4.4	3.5
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	N	N	N	N	N	N	N	N	N	E	E	E	E	E	N	E	N
4. Traffic: ADT 1955	1250	1200	1150	1150	1150	1500	1869	1043	1043	1043	897	910	910	910	1100	1062	800
5. Traffic: ADT 1975	3400	3200	3100	3100	3100	5200	6500	2800	2800	2800	2400	2400	2400	2400	3000	2900	2200
6. Traffic: DHV 1975	400	380	370	370	370	620	770	330	330	330	280	280	280	280	360	340	260
7. Directional distribution factor (D), 1975	-	-	55	-	-	60	60	-	-	55	-	-	-	-	-	-	-
8. Percent trucks (T), 1975	10	10	10	10	10	10	10	10	10	10	10	10	10	10	13	13	13
9. Design speed (V)	60	60	60	70	70	70	70	70	60	60	60	60	60	60	60	60	60
10. Number of through traffic lanes	2	2	4	2	2	4	4	2	2	4	2	2	2	2	2	2	2
11. Mileage without frontage roads	8.3	2.2	5.9	2.1	7.8	1.4	2.9	5.8	2.4	4.6	7.6	7.2	2.7	1.5	4.5	4.4	3.0
12. Mileage with frontage road one side only	-	4.7	-	4.4	-	-	0.6	0.1	-	0.5	0.6	-	-	0.1	1.0	-	0.5
13. Mileage with frontage road on both sides	-	0.6	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-
14. Typical cross section reference	20	20	40	20	20	50	50	20	20	40	20	20	20	20	20	20	20

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 8 of 16STATE MONTANAPAI ROUTE NUMBER 101

Item	ROUTE SECTION																TOTAL
	F7-F8	F8-F9	F9-F10	F10-F11	F11-F12	F12-F13	F13-F14	F14-F15	F15-F16	F16-F17	F17-F18	F18-F19	F19-F20	F20-F21			
1. Section length, miles	2.5	3.8	2.8	2.8	4.8	4.2	6.3	1.3	2.4	1.2	16.0	4.7	4.9	6.1			702.7
2. Class - rural or urban	R	R	R	R	R	R	R	U	R	R	R	R	R	R			xxx
3. Location - existing, new or toll	N	N	N	N	N	N	N	N	N	N	E	E	N	E			xxx
4. Traffic: ADT 1955	800	800	850	800	850	850	1000	1200	900	900	1013	1098	1100	1045			xxx
5. Traffic: ADT 1975	2200	2200	2300	2200	2300	2300	2700	4200	3100	3100	2700	3000	3000	2800			xxx
6. Traffic: DMV 1975	260	260	270	260	270	270	320	500	370	370	320	360	360	330			xxx
7. Directional distribution factor (D), 1975	55	-	-	55	-	55	-	55	55	-	-	-	-	-			xxx
8. Percent trucks (T), 1975	13	13	13	13	13	13	13	13	15	15	15	15	15	15			xxx
9. Design speed (V)	60	60	60	60	60	60	60	50	60	60	60	70	70	70			xxx
10. Number of through traffic lanes	4	2	2	4	2	4	2	4	4	2	2	2	2	2			xxx
11. Mileage without frontage roads	2.5	3.8	2.8	2.2	4.8	4.2	6.3	1.0	2.4	1.2	16.0	4.7	3.9	6.1			575.5
12. Mileage with frontage road one side only	-	-	-	0.6	-	-	-	0.3	-	-	-	-	1.0	-			115.1
13. Mileage with frontage road on both sides	-	-	-	-	-	-	-	-	-	-	-	-	-	-			12.1
14. Typical cross section reference	40	20	20	40	20	40	20	46	40	20	20	20	20	20			xxx

Signatures: _____ Deputy State Highway Engineer _____ Date _____

BPR Division Engineer _____ Date _____

Table B: Sheet 9 of 16

FAI ROUTE NUMBER 102

Item	ROUTE SECTION																
	G1-G2	G2-G3	G3-G4	G4-G5	G5-G6	G6-G7	G7-G8	G8-G9	G9-G10	G10-G11	G11-G12	G12-G13	G13-G14	G14-G15	G15-G16	G16-G17	G17-G18
1. Section length, miles	1.6	11.2	4.4	5.9	1.9	12.7	8.0	10.2	3.4	6.5	12.7	9.1	5.7	3.3	5.5	10.2	4.7
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	N	E	N	E	N	E	N	N	E	N	N	N	N	N	E	N	N
4. Traffic: ADT 1955	430	430	430	438	438	438	438	585	585	900	650	650	650	789	789	955	955
5. Traffic: ADT 1975	1200	1200	1200	1300	1300	1300	1300	1700	1700	2800	1900	1900	1900	2300	2300	2800	2800
6. Traffic: DHV 1975	160	160	160	170	170	170	170	230	230	370	250	250	250	300	300	370	370
7. Directional distribution factor (D), 1975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	55
8. Percent trucks (T), 1975	20	20	20	20	20	20	20	20	20	20	14	14	14	14	14	14	14
9. Design speed (V)	60	60	60	70	70	70	60	60	70	70	70	60	60	60	50	50	50
10. Number of through traffic lanes	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	4
11. Mileage without frontage roads	1.6	11.0	4.1	5.1	0.9	12.7	8.0	10.2	3.4	6.0	12.7	9.1	5.7	3.3	5.5	9.6	4.7
12. Mileage with frontage road one side only	-	0.2	0.3	0.8	1.0	-	-	-	-	0.5	-	-	-	-	-	0.6	-
13. Mileage with frontage road on both sides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Typical cross section reference	20	20	20	20	20	20	20	20	20	20	20	20	20	20	43	21	43

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 10 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Item	ROUTE SECTION																
	G18-G19	G19-G20	G20-B11	B11-B12	B12-G21	G21-G22	G22-G23	G23-G24	G24-G25	G25-G26	G26-G27	G27-G28	G28-G29	G29-G30	G30-G31	G31-G32	G32-H1
1. Section length, miles	4.3	1.2	3.5	3.5	1.2	3.8	20.4	5.4	7.1	10.5	3.8	2.2	1.8	5.9	2.3	8.9	6.0
2. Class - rural or urban	R	R	R	U	R	R	R	R	R	R	R	R	U	R	R	R	R
3. Location - existing, new or toll	E	E	E	N	N	N	N	N	E	E	E	E	N	N	N	E	E
4. Traffic: ADT 1955	955	1350	-	-	-	800	800	800	681	805	900	1067	1300	1400	1103	1103	1069
5. Traffic: ADT 1975	2800	5000	-	-	-	3000	2300	2300	2000	2300	2600	3400	4400	4500	3200	3200	3100
6. Traffic: DHV 1975	370	650	-	-	-	360	280	280	240	280	310	410	530	715	510	510	490
7. Directional distribution factor (D), 1975	-	55	-	-	-	55	55	-	55	-	-	-	60	55	55	55	-
8. Percent trucks (T), 1975	14	14	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10
9. Design speed (V)	60	60	-	-	-	50	50	60	50	60	60	60	50	70	60	50	50
10. Number of through traffic lanes	2	4	-	-	-	4	4	2	4	2	2	2	4	4	4	4	2
11. Mileage without frontage roads	4.0	1.2	3.5	3.5	1.2	3.8	20.4	4.4	6.1	9.8	2.8	2.2	1.8	5.0	2.3	8.9	4.6
12. Mileage with frontage road one side only	0.3	-	-	-	-	-	-	1.0	1.0	0.7	1.0	-	-	0.9	-	-	1.4
13. Mileage with frontage road on both sides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Typical cross section reference	20	40	-	-	-	49	43	20	43	20	20	20	50	50	50	43	21

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 11 of 16STATE MONTANAFAI ROUTE NUMBER 102

Item	ROUTE SECTION																
	H1-H2	H2-H3	H3-H4	H4-H5	H5-H6	H6-H7	H7-H8	H8-H9	H9-H10	H10-H11	H11-H12	H12-H13	H13-H14	H14-H15	H15-H16	H16-H17	H17-H18
1. Section length, miles	8.3	6.0	3.8	3.6	4.8	2.4	4.0	4.6	5.7	2.9	5.4	2.6	4.3	1.5	0.7	1.2	1.7
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	U	R
3. Location - existing, new or toll	N	N	N	E	E	N	E	N	N	N	N	E	E	E	N	N	N
4. Traffic: ADT 1955	1069	830	830	930	930	930	990	990	1155	1155	1155	1272	1272	2760	1400	1400	2500
5. Traffic: ADT 1975	3100	2200	2200	2500	2500	2500	2700	2700	3100	3100	3100	3400	3400	8800	5200	5200	9300
6. Traffic: DHV 1975	490	350	350	400	400	400	430	430	490	490	490	540	540	1400	830	830	1150
7. Directional distribution factor (D), 1975	55	55	-	55	55	55	55	-	-	55	-	55	-	55	60	60	55
8. Percent trucks (T), 1975	10	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	12
9. Design speed (V)	50	50	50	50	50	50	50	60	60	60	60	60	60	60	70	50	70
10. Number of through traffic lanes	4	4	2	4	4	4	2	2	2	4	2	4	2	4	4	4	4
11. Mileage without frontage roads	7.7	4.5	1.8	3.4	4.8	2.3	3.6	4.6	5.0	2.9	5.4	2.4	0.7	0.8	0.7	1.2	0.5
12. Mileage with frontage road one side only	0.6	1.5	2.0	0.2	-	0.1	0.4	-	0.7	-	-	0.2	3.6	0.7	-	-	1.2
13. Mileage with frontage road on both sides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14. Typical cross section reference	49	43	21	49	49	49	21	20	20	40	20	40	20	56	56	56	50

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 12 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Item	ROUTE SECTION																
	H18-H19	H19-H20	H20-H21	H21-H22	H22-H23	H23-H24	H24-H25	H25-I1	I1-I2	I2-I3	I3-I4	I4-I5	I5-I6	I6-I7	I7-I8	I8-I9	I9-I10
1. Section length, miles	1.4	6.5	10.5	15.8	2.7	3.3	2.8	13.1	14.6	1.3	3.4	3.1	3.6	13.5	11.5	3.5	3.7
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3. Location - existing, new or toll	E	E	E	E	E	E	E	N	N	N	N	E	N	E	E	E	N
4. Traffic: ADT 1955	3155	3155	1239	1200	1261	1261	1190	1090	1360	1148	1148	1148	1340	1193	971	717	717
5. Traffic: ADT 1975	10100	10100	3700	3600	3700	3700	3500	3200	4000	3400	3400	3400	4300	3500	2900	2100	2100
6. Traffic: DHV 1975	1250	1250	460	450	460	460	430	400	500	420	420	420	530	430	360	260	260
7. Directional distribution factor (D), 1975	55	55	-	-	-	-	-	-	-	-	55	-	55	-	-	-	-
8. Percent trucks (T), 1975	12	12	13	13	15	15	15	15	15	15	15	15	15	15	15	15	15
9. Design speed (V)	70	70	70	70	70	70	70	70	70	70	60	60	60	70	70	70	70
10. Number of through traffic lanes	4	4	2	2	2	2	2	2	2	2	4	2	4	2	2	2	2
11. Mileage without frontage roads	-	0.6	9.4	8.8	2.7	3.3	2.6	10.1	14.6	1.3	3.2	3.1	2.7	12.9	6.2	3.5	3.2
12. Mileage with frontage road one side only	1.4	5.9	1.1	5.7	-	-	0.2	3.0	-	-	0.2	-	0.5	0.6	3.5	-	0.5
13. Mileage with frontage road on both sides	-	-	-	1.3	-	-	-	-	-	-	-	-	0.4	-	1.8	-	-
14. Typical cross section reference	50	50	20	20	20	20	20	20	20	20	40	20	40	20	20	20	20

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 13 of 16STATE MONTANAFAI ROUTE NUMBER 102

Item	ROUTE SECTION																TOTAL
	110-111																
1. Section length, miles	0.5																387.1 (1)
2. Class - rural or urban	R																xxx
3. Location - existing, new or toll	N																xxx
4. Traffic: ADT 1955	800																xxx
5. Traffic: ADT 1975	2400																xxx
6. Traffic: DMV 1975	300																xxx
7. Directional distribution factor (D), 1975	-																xxx
8. Percent trucks (T), 1975	15																xxx
9. Design speed (V)	70																xxx
10. Number of through traffic lanes	2																xxx
11. Mileage without frontage roads	0.5																340.1 (1)
12. Mileage with frontage road one side only	-																43.5
13. Mileage with frontage road on both sides	-																3.5
14. Typical cross section reference	20																xxx

(1) Includes 8.2 miles coincident with FAI Rte. 101

Signatures: _____
Deputy State Highway Engineer _____ Date _____

BPR Division Engineer _____ Date _____

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 14 of 16

STATE MONTANAFAI ROUTE NUMBER 103

Item	ROUTE SECTION															TOTAL
	J1-J2	J2-J3	J3-J4	J4-J5	J5-J6	J6-J7	J7-J8	J8-J9	J9-J10	J10-J11	J11-J12	J12-J13	J13-J14	J14-J15		
1. Section length, miles	4.2	5.4	13.1	10.6	8.9	9.0	6.0	9.8	7.5	4.3	2.1	2.9	12.1	6.2		102.1 (1)
2. Class - rural or urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R		xxx
3. Location - existing, new or toll	E	E	E	E	E	E	N	E	N	N	N	N	N	N		xxx
4. Traffic: ADT 1955	784	858	919	1054	1054	1607	1900	852	800	800	800	800	900	-		xxx
5. Traffic: ADT 1975	2100	2300	2500	2800	2800	4300	5600	2300	2200	2200	2200	2200	2900	-		xxx
6. Traffic: DHV 1975	240	260	280	320	320	490	630	260	250	250	250	250	330	-		xxx
7. Directional distribution factor (D), 1975	55	-	-	-	-	-	-	-	-	55	55	-	55	-		xxx
8. Percent trucks (T), 1975	14	14	14	12	12	11	11	14	14	14	14	14	14	-		xxx
9. Design speed (V)	60	70	70	70	70	70	70	70	60	60	60	60	60	-		xxx
10. Number of through traffic lanes	4	2	2	2	2	2	2	2	2	4	4	2	4	-		xxx
11. Mileage without frontage roads	4.2	4.7	11.2	9.8	5.9	7.7	6.0	9.7	7.3	4.0	2.1	-	8.6	5.9		87.1 (2)
12. Mileage with frontage road one side only	-	0.7	1.9	0.8	2.7	1.3	-	0.1	0.2	0.3	-	2.9	3.5	0.3		14.7 (3)
13. Mileage with frontage road on both sides	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-		0.3
14. Typical cross section reference	40	20	20	20	20	20	20	20	20	40	40	20	40	-		xxx

- (1) Includes 6.2 miles coincident with FAI Rte. 101
 (2) Includes 5.9 miles coincident with FAI Rte. 101
 (3) Includes 0.3 miles coincident with FAI Rte. 101

Signatures: _____ Deputy State Highway Engineer _____ Date _____

_____ BPR Division Engineer _____ Date _____

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 15 of 16

STATE MONTANAFAI ROUTE NUMBER 104

Item	ROUTE SECTION																TOTAL
	K1-K2																
1. Section length, miles	1.1																1.1
2. Class - rural or urban	R																xxx
3. Location - existing, new or toll	E																xxx
4. Traffic: ADT 1955	3000																xxx
5. Traffic: ADT 1975	9600																xxx
6. Traffic: DHV 1975	960																xxx
7. Directional distribution factor (D), 1975	60																xxx
8. Percent trucks (T), 1975	10																xxx
9. Design speed (V)	50																xxx
10. Number of through traffic lanes	4																xxx
11. Mileage without frontage roads	1.1																1.1
12. Mileage with frontage road one side only	-																-
13. Mileage with frontage road on both sides	-																-
14. Typical cross section reference	40																xxx

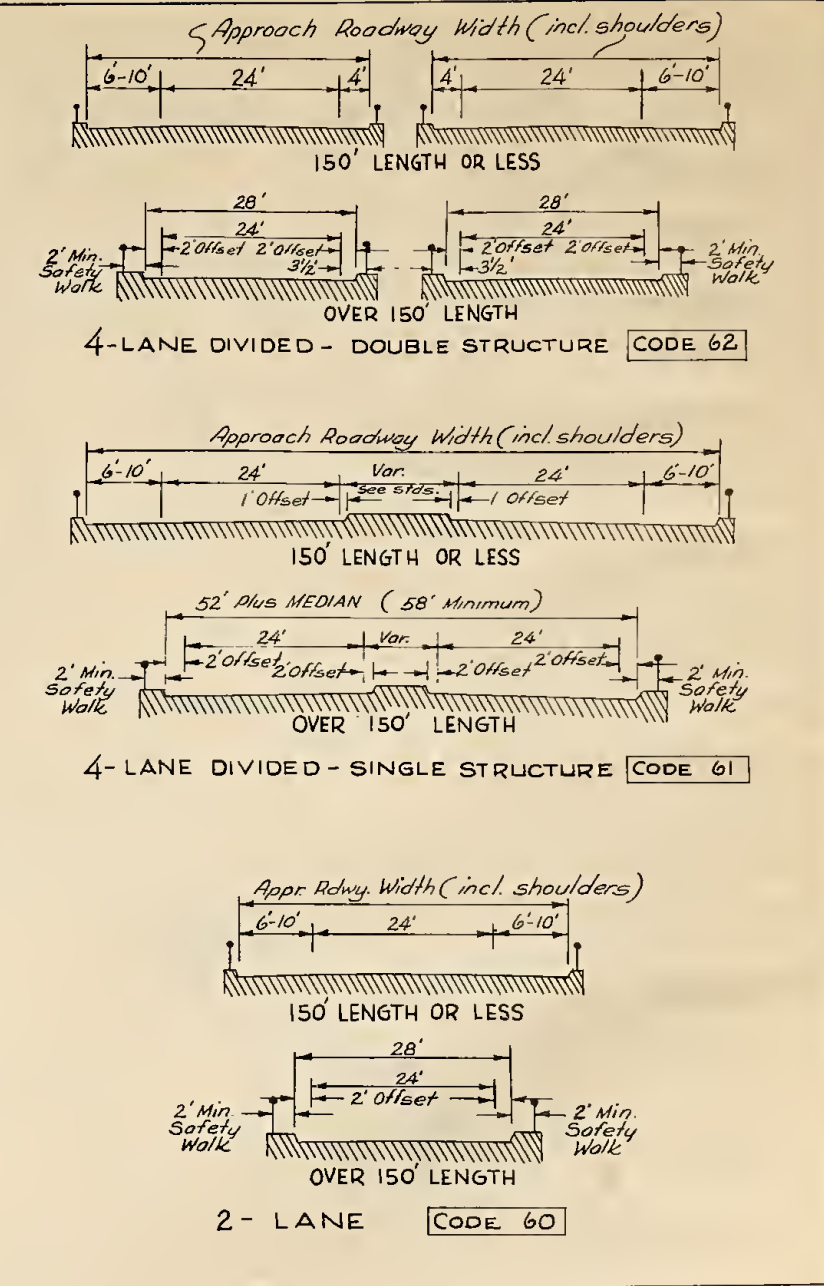
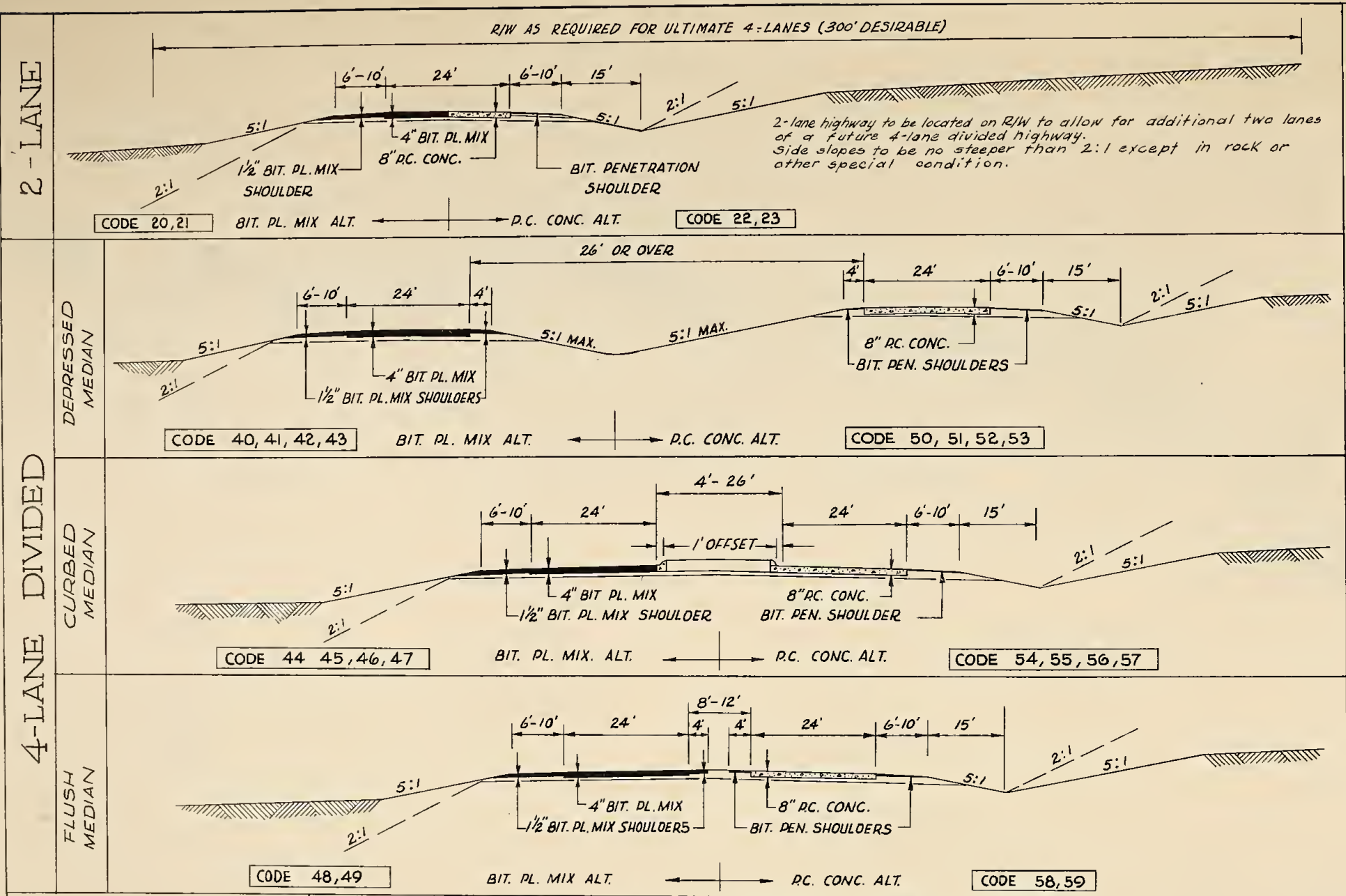
Signatures: _____
Deputy State Highway Engineer Date_____
BPR Division Engineer Date

TABLE B - DESIGN CLASSIFICATION BY ROUTE SECTIONS

Table B: Sheet 16 of 16STATE MONTANAFAI ROUTE NUMBER 105

Item	ROUTE SECTION																TOTAL
	11-12	12-13															
1. Section length, miles	0.8	0.2															1.0
2. Class - rural or urban	R	U															xxx
3. Location - existing, new or toll	E	E															xxx
4. Traffic: ADT 1955	2000	2000															xxx
5. Traffic: ADT 1975	7400	7400															xxx
6. Traffic: DHV 1975	1200	1200															xxx
7. Directional distribution factor (D), 1975	60	60															xxx
8. Percent trucks (T), 1975	10	10															xxx
9. Design speed (V)	70	50															xxx
10. Number of through traffic lanes	4	4															xxx
11. Mileage without frontage roads	-	-															-
12. Mileage with frontage road one side only	0.8	0.2															1.0
13. Mileage with frontage road on both sides	-	-															-
14. Typical cross section reference	56	56															xxx

Signatures: _____
Deputy State Highway Engineer Date_____
BPR Division Engineer Date



TYPICAL SECTION REFERENCE CODE							
SURFACE TYPE	SHOULDER WIDTH	2-LANE	4-LANE DIVIDED				
			MEDIAN WIDTH				
			36 FT. OR OVER	16 FT. - 35 FT.		4 FT. - 15 FT.	
			DEPRESSED	DEPRESSED	CURBED	CURBED	FLUSH
4" BIT. PL. MIX	10 FT. OR OVER	20	40	42	44	46	48
	6 FT. - 10 FT.	21	41	43	45	47	49
8" P.C. CONC.	10 FT. OR OVER	22	50	52	54	56	58
	6 FT. - 10 FT.	23	51	53	55	57	59

MONTANA HIGHWAY COMMISSION
TYPICAL SECTION REFERENCE KEYS
as used for detailed estimate
of the cost of completing the
INTERSTATE SYSTEM





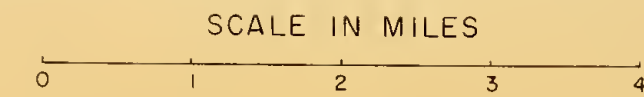
LEGEND

- APPROVED INTERSTATE LOCATION
- TENTATIVE INTERSTATE LOCATION
- INTERCHANGE
- HIGHWAY GRADE SEPARATION - NO CON
- RAILROAD GRADE SEPARATION
- COMBINATION HIGHWAY-RAILROAD GRA
- OTHER BRIDGE
- ONE LANE STRUCTURE (STRUCTURAL



LEGEND FOR INTERSTATE ROUTES

APPROVED INTERSTATE LOCATION	TUNNEL
TENTATIVE INTERSTATE LOCATION	TOLL BRIDGE, TUNNEL, HIGHWAY OR COMBINATION
INTERCHANGE	FRONTAGE ROAD
HIGHWAY GRADE SEPARATION - NO CONNECTION	RIGHT TURN CONNECTIONS ONLY
RAILROAD GRADE SEPARATION	TERMINATED CROSS ROAD
COMBINATION HIGHWAY-RAILROAD GRADE SEPARATION	INTERSECTION AT GRADE
OTHER BRIDGE	URBAN AREA BOUNDARY
ONE LANE STRUCTURE (STRUCTURAL PLATE PIPE CULVERT OR CONCRETE BOX)	



MONTANA

INTERSTATE ROUTE 101

SHEET 1 OF 13









MONTANA

INTERSTATE ROUTE 101

SHEET 2 OF 13









B2

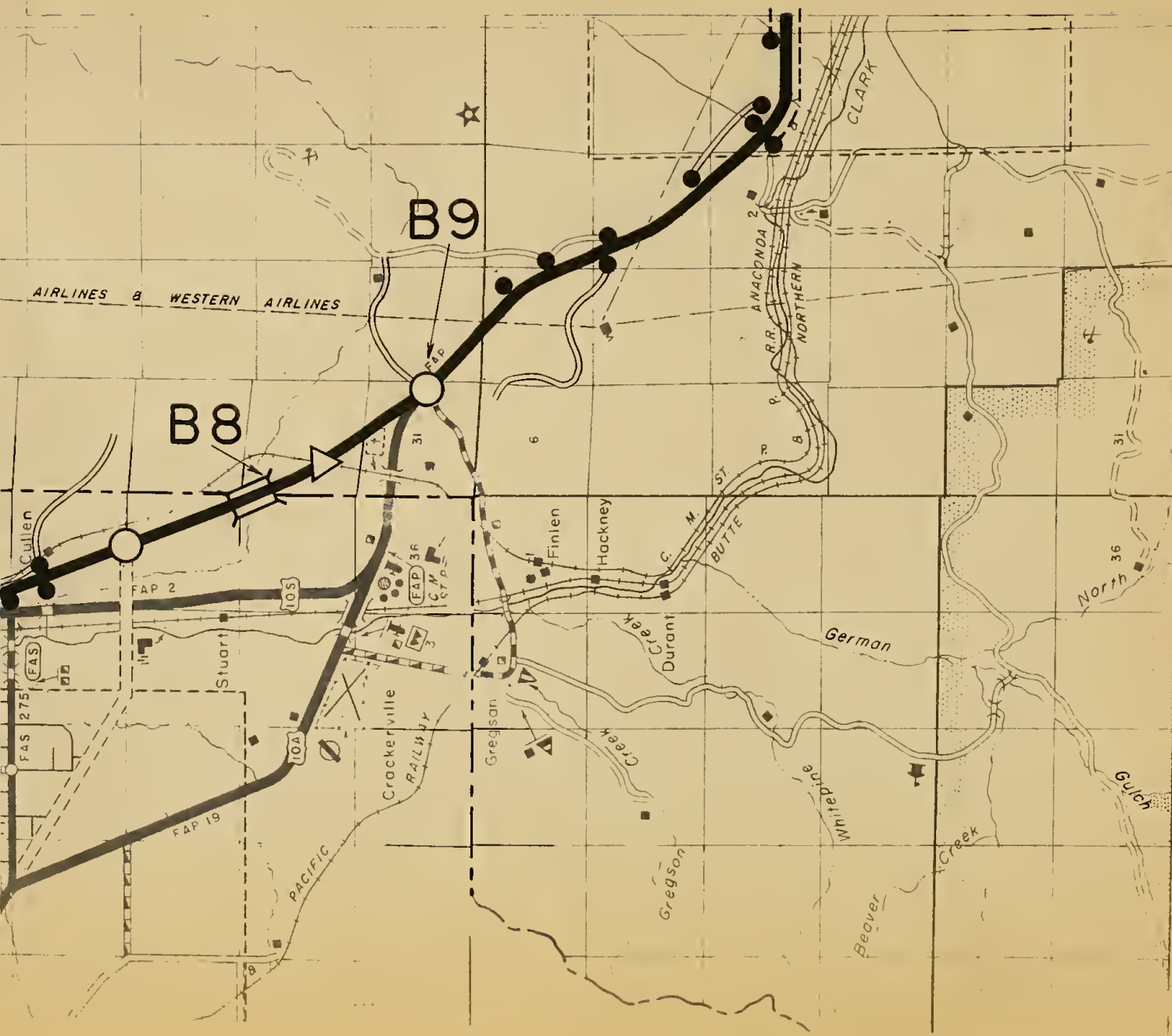
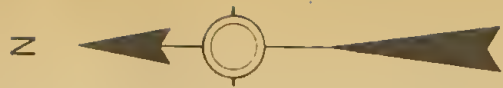
B3

B4

B5





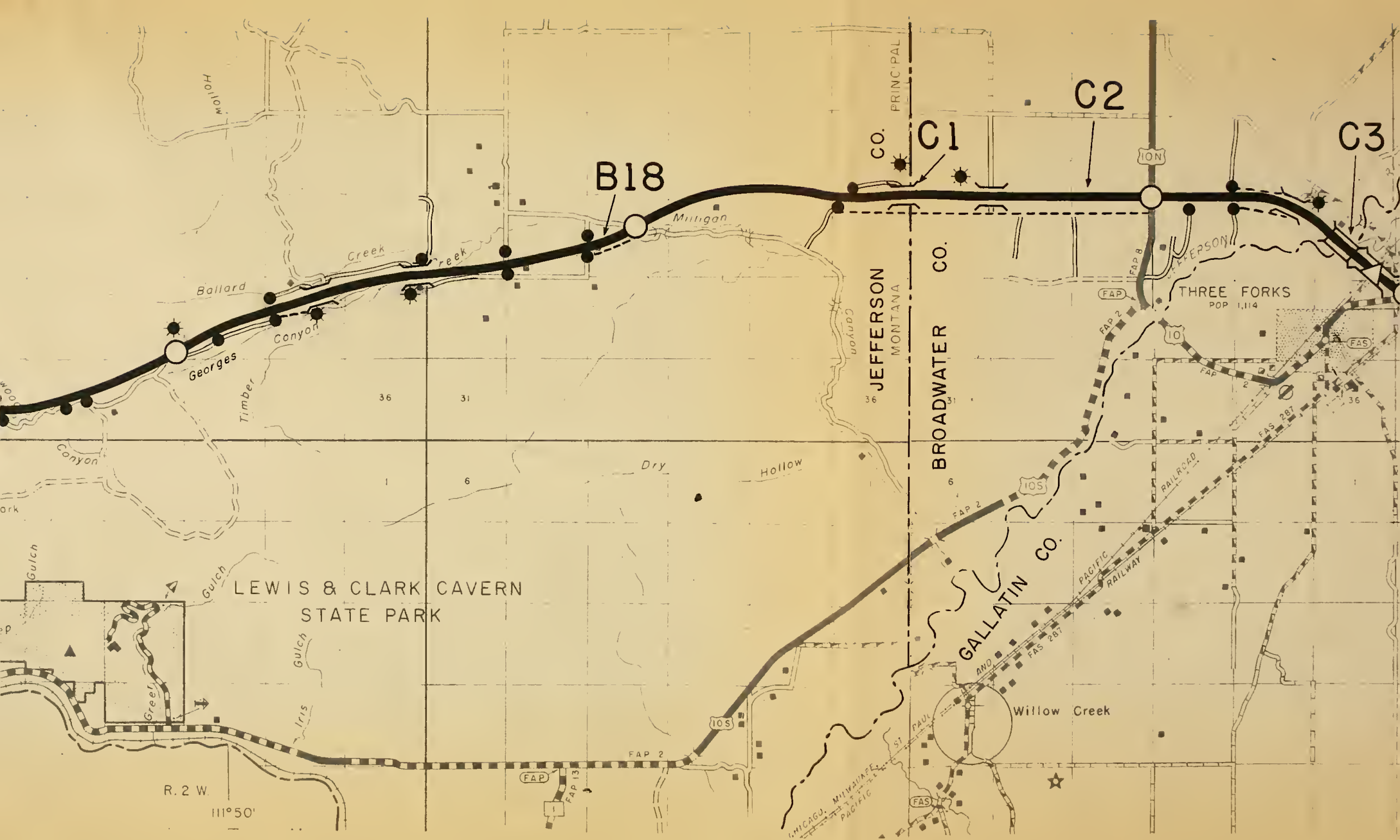


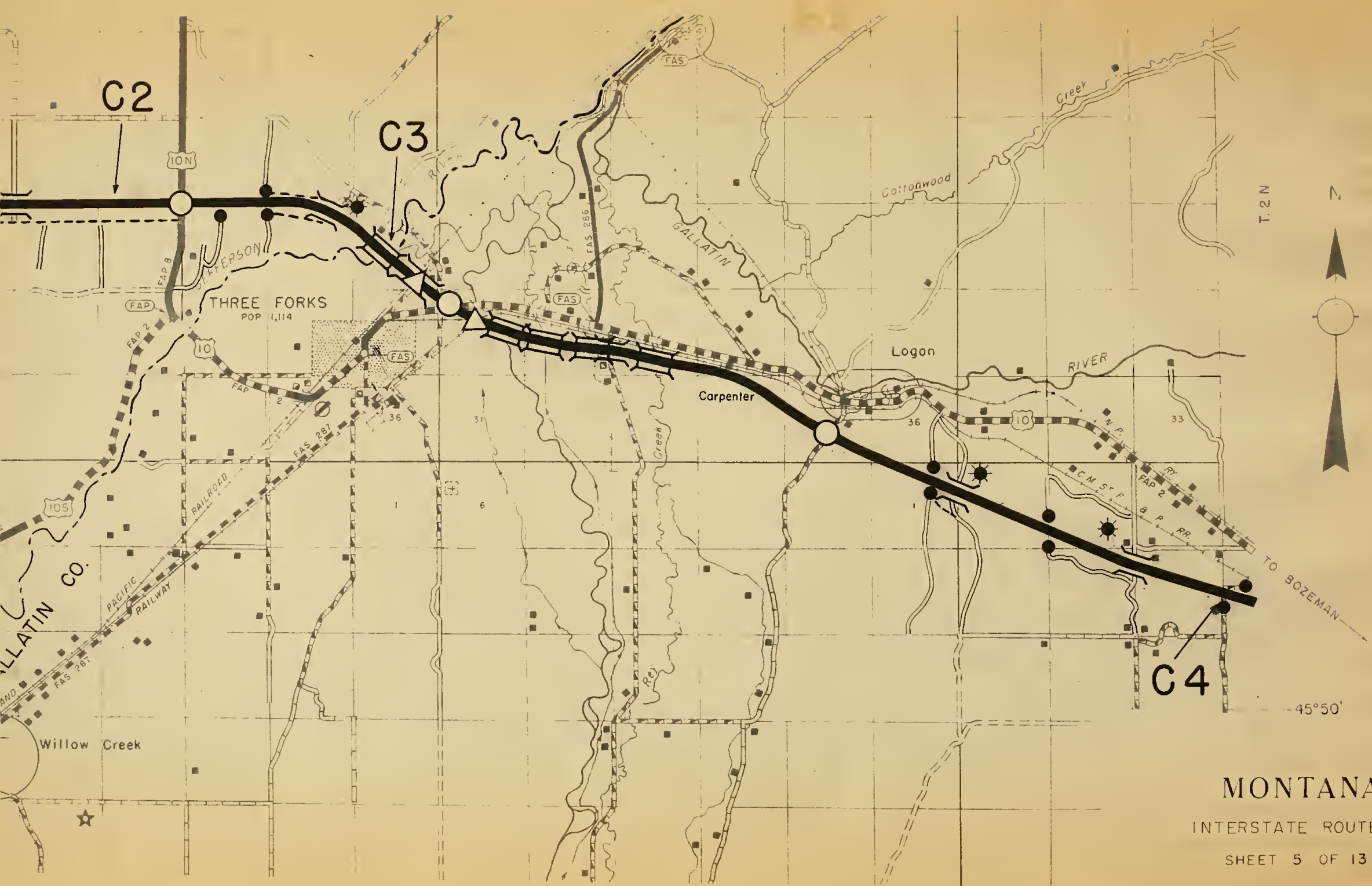


MONTANA
INTERSTATE ROUTE 101
SHEET 4 OF 13
(INTERSTATE ROUTE 104
COMPLETE ROUTE ON THIS SHEET)









T.2N

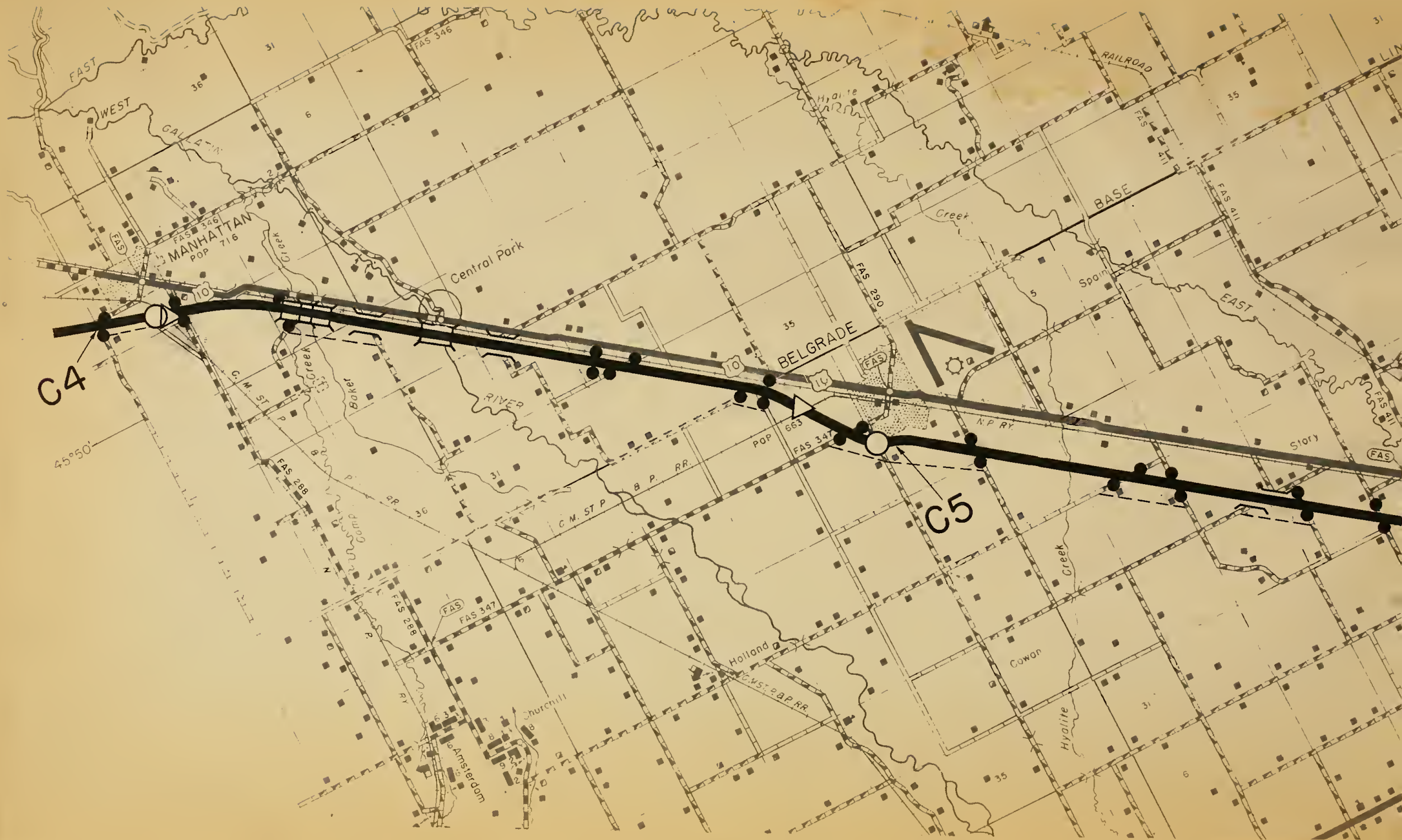


45°50'

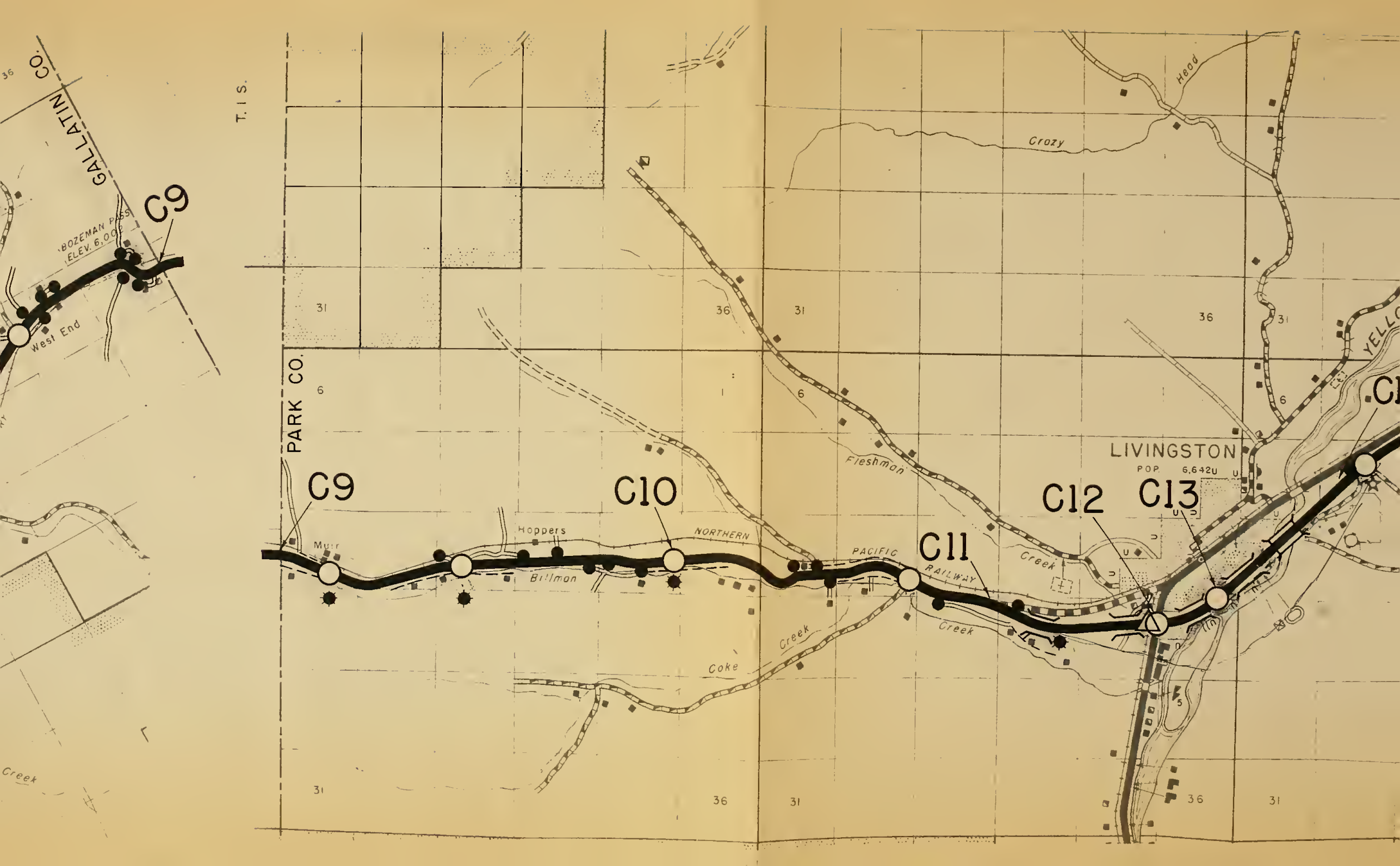
MONTANA

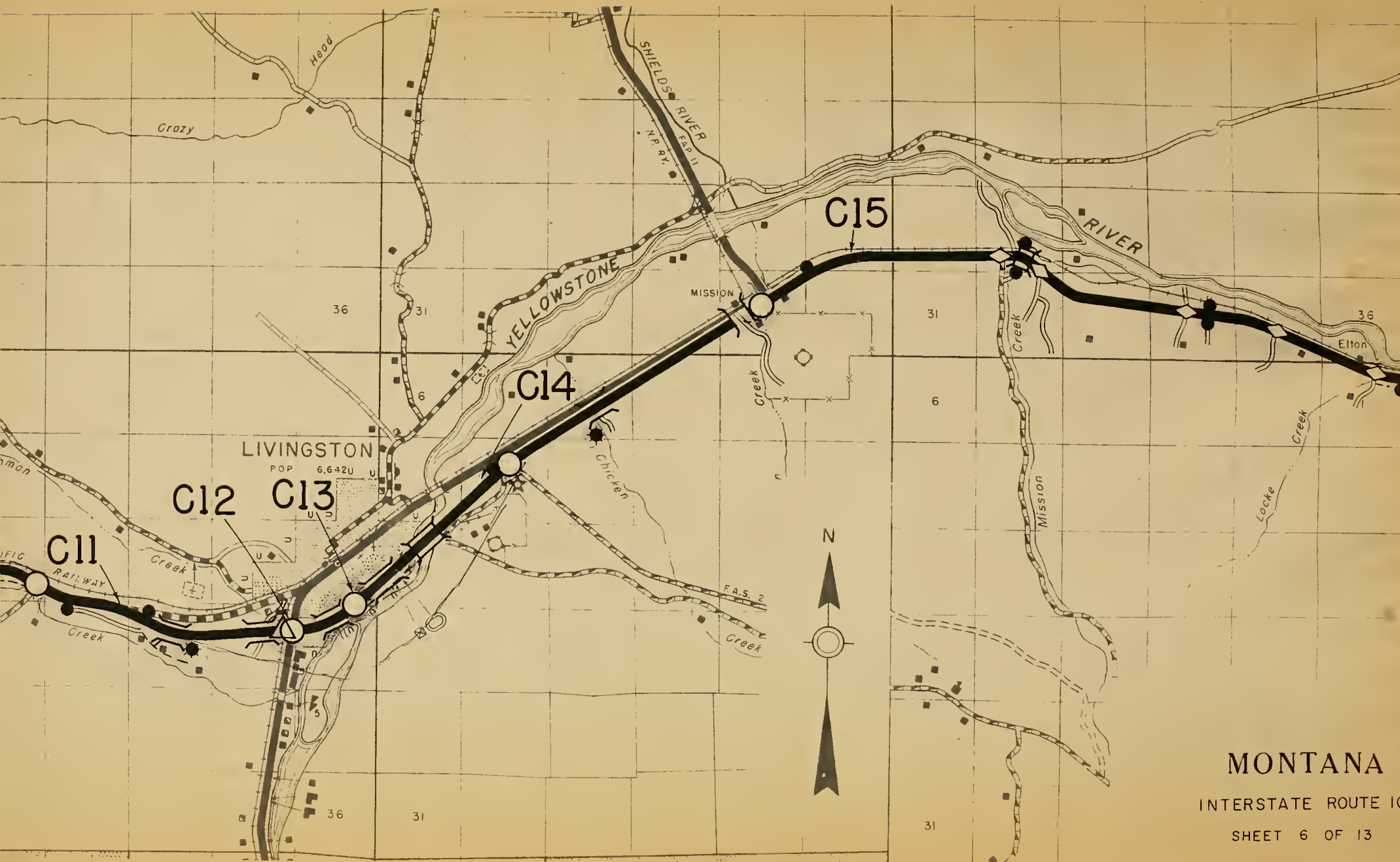
INTERSTATE ROUTE 101

SHEET 5 OF 13









MONTANA

INTERSTATE ROUTE 101

SHEET 6 OF 13









D14

D15

D16

MONTANA

INTERSTATE ROUTE 101

SHEET 8 OF 13



D17

D18





WSTONE

D19

Pompeys Pillar

D20

D21

YELLOWSTONE

BIG H

R 32 E.

T 3 N. - 46° 00'

107° 40'



MONTANA

INTERSTATE ROUTE 101

SHEET 9 OF 13









MONTANA
INTERSTATE ROUTE 101
SHEET 10 OF 13









E 15

F 1

N

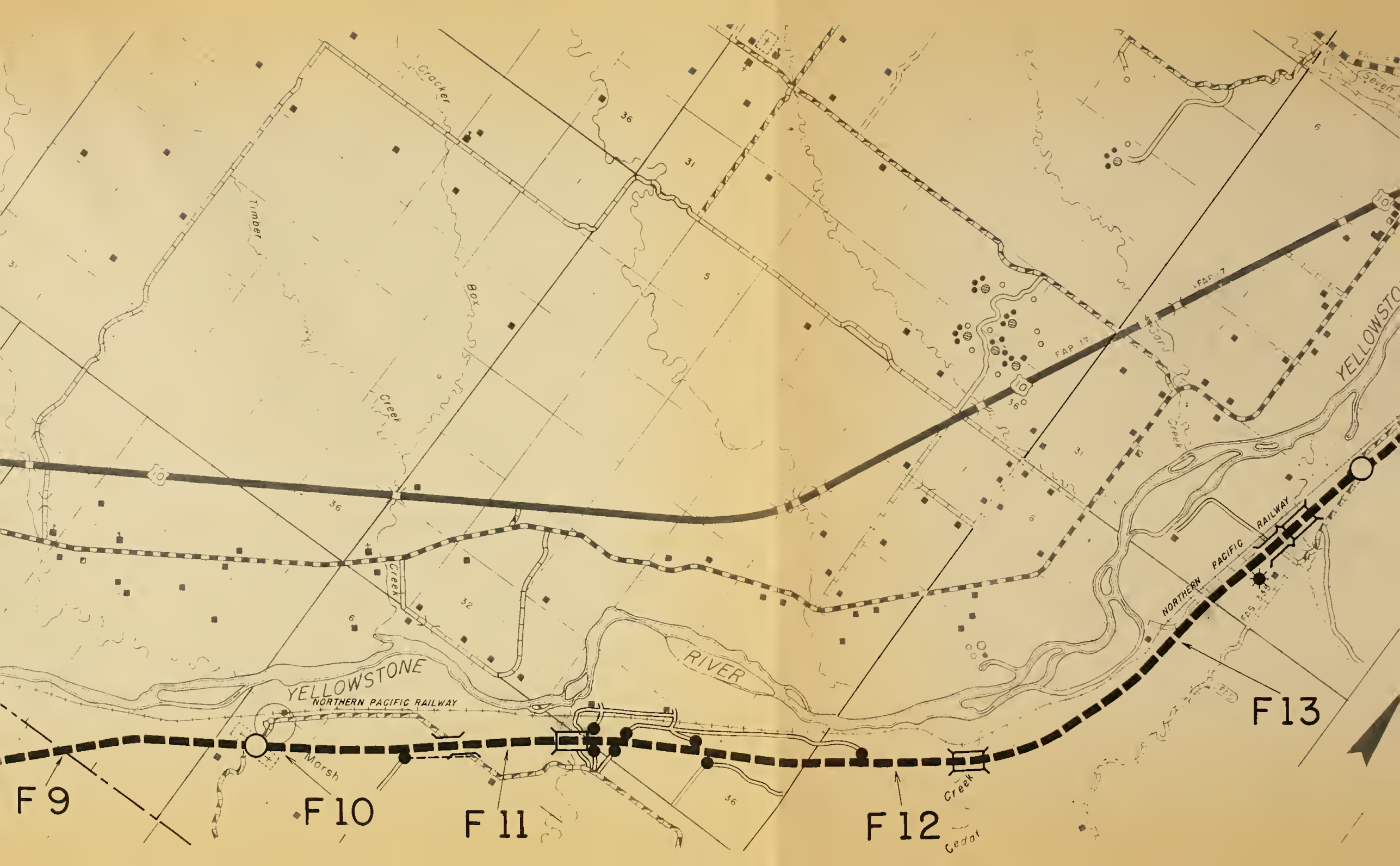
MONTANA

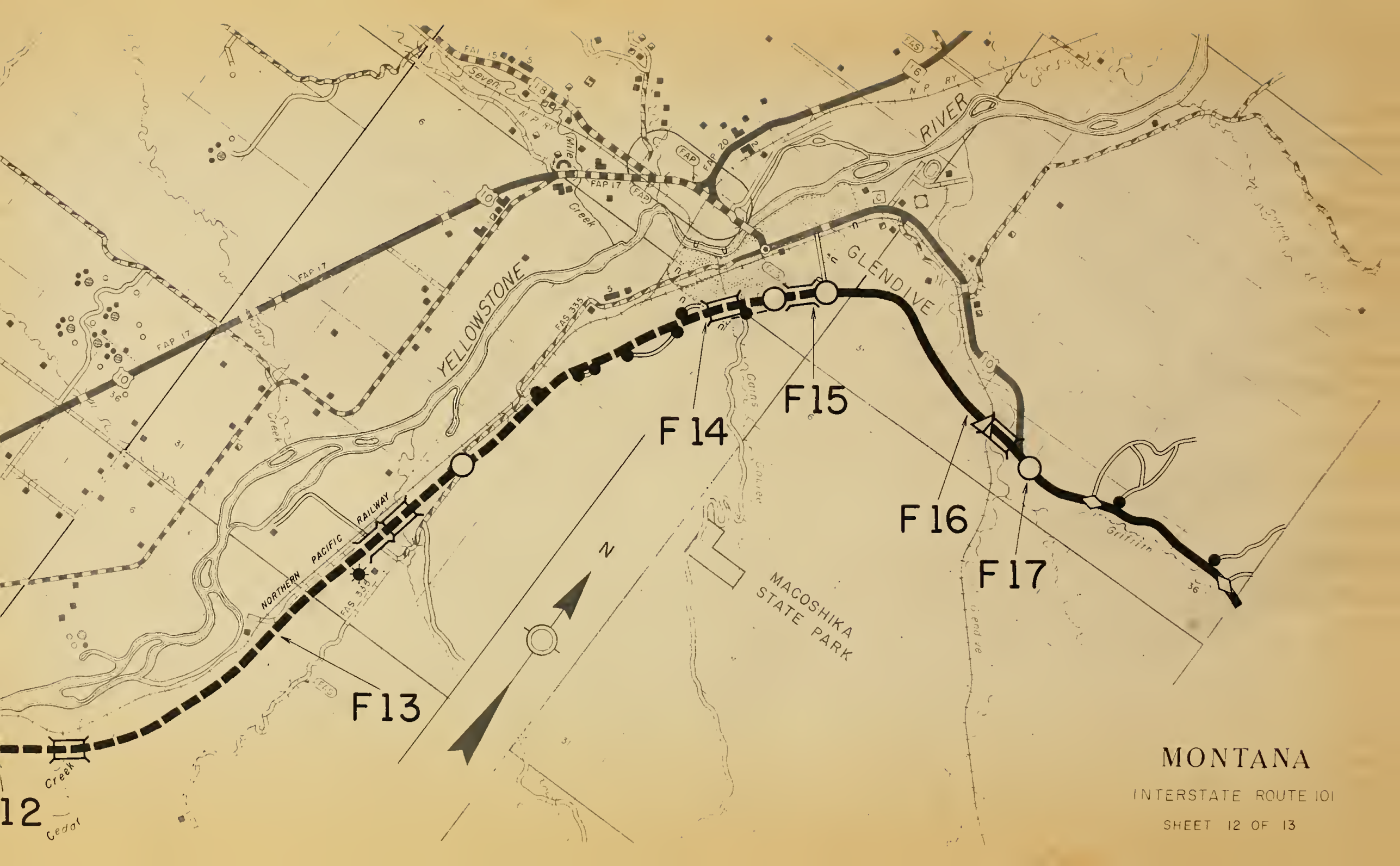
INTERSTATE ROUTE 101

SHEET II OF 13









12

F13

F14

F15

F16

F17

MONTANA

INTERSTATE ROUTE 101

SHEET 12 OF 13

WIBAC
DAWSON

F 18







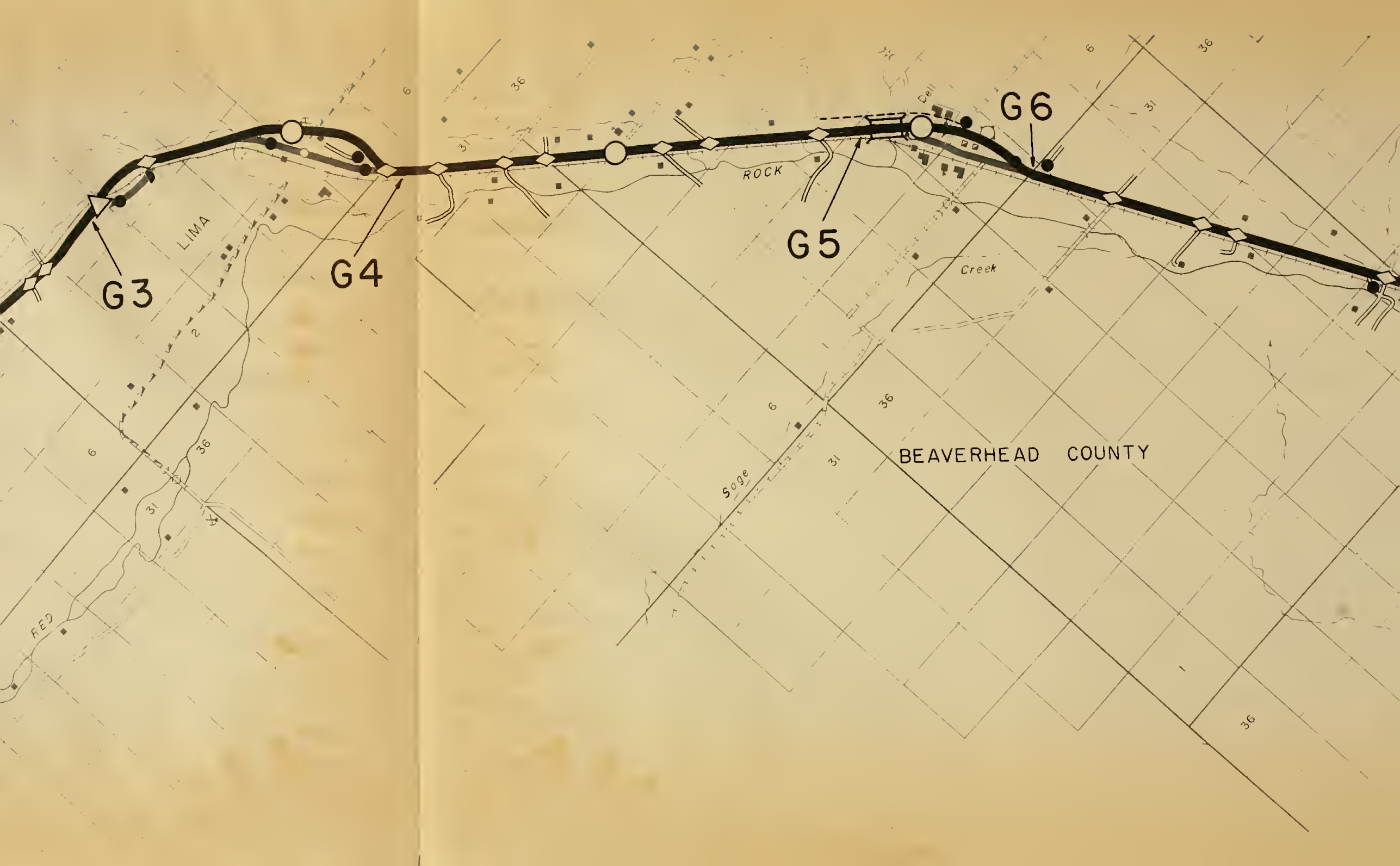
MONTANA

INTERSTATE ROUTE 101

SHEET 13 OF 13

I D A H O





G3

G4

G5

G6

LIMA

ROCK

Creek

SAGE

BEAVERHEAD COUNTY

RED



LEGEND FOR INTERSTATE ROUTES

- | | | | |
|--|--|-------------|---|
| | APPROVED INTERSTATE LOCATION | | TUNNEL |
| | TENTATIVE INTERSTATE LOCATION | <i>Toll</i> | TOLL BRIDGE, TUNNEL, HIGHWAY OR COMBINATION |
| | INTERCHANGE | | FRONTAGE ROAD |
| | HIGHWAY GRADE SEPARATION - NO CONNECTION | | RIGHT TURN CONNECTIONS ONLY |
| | RAILROAD GRADE SEPARATION | | TERMINATED CROSS ROAD |
| | COMBINATION HIGHWAY-RAILROAD GRADE SEPARATION | | INTERSECTION AT-GRADE |
| | OTHER BRIDGE | | URBAN AREA BOUNDARY |
| | ONE LANE STRUCTURE (STRUCTURAL PLATE PIPE CULVERT OR CONCRETE BOX) | | |



MONTANA

INTERSTATE ROUTE 102

SHEET 1 OF 7







G12

G13

PACIFIC

RAILWAY

HOLE

Browns

Glen

Reichle
P.O.

FAP 3

Big

MADISON CO.
BEAVERHEAD CO.

FAP 3

32

36

31



MONTANA

INTERSTATE ROUTE 102

SHEET 2 OF 7





G17

G18

G19
G20

B11

K1
K2

COINCIDENT WITH
FAI RTE 101

B12

G21

FAI RTE 101

BUTTE

WALKERVILLE

INTERSTATE

SILVER
RIVER
W.

TO BOULDER

CLARK
NORTHERN

Canyon

RAILWAY

ELK PARK
PASS 6732

FAS 403

FAS 276

FAS 263

FAS 393

FAS 375

FAS 532

FAS 105

FAS 101

FAS 100

FAS 99

FAS 98

FAS 97

FAS 96

FAS 95

FAS 94

FAS 93

FAS 92

FAS 91

FAS 90

FAS 89

FAS 88

FAS 87

FAS 86

FAS 85

FAS 84

FAS 83

FAS 82

FAS 81

FAS 80

FAS 79

FAS 78

FAS 77

FAS 76

FAS 75

FAS 74

FAS 73

FAS 72

FAS 71

FAS 70

FAS 69

FAS 68

FAS 67

FAS 66

FAS 65

FAS 64

FAS 63

FAS 62

FAS 61

FAS 60

FAS 59

FAS 58

FAS 57

FAS 56

FAS 55

FAS 54

FAS 53

FAS 52

FAS 51

FAS 50

FAS 49

FAS 48

FAS 47

FAS 46

FAS 45

FAS 44

FAS 43

FAS 42

FAS 41

FAS 40

FAS 39

FAS 38

FAS 37

FAS 36

FAS 35

FAS 34

FAS 33

FAS 32

FAS 31

FAS 30

FAS 29

FAS 28

FAS 27

FAS 26

FAS 25

FAS 24

FAS 23

FAS 22

FAS 21

FAS 20

FAS 19

FAS 18

FAS 17

FAS 16

FAS 15

FAS 14

FAS 13

FAS 12

FAS 11

FAS 10

FAS 9

FAS 8

FAS 7

FAS 6

FAS 5

FAS 4

FAS 3

FAS 2

FAS 1

FAS 0

FAS -1

FAS -2

FAS -3

FAS -4

FAS -5

FAS -6

FAS -7

FAS -8

FAS -9

FAS -10

FAS -11

FAS -12

FAS -13

FAS -14

FAS -15

FAS -16

FAS -17

FAS -18

FAS -19

FAS -20

FAS -21

FAS -22

FAS -23

FAS -24

FAS -25

FAS -26

FAS -27

FAS -28

FAS -29

FAS -30

FAS -31

FAS -32

FAS -33

FAS -34

FAS -35

FAS -36

FAS -37

FAS -38

FAS -39

FAS -40

FAS -41

FAS -42

FAS -43

FAS -44

FAS -45

FAS -46

FAS -47

FAS -48

FAS -49

FAS -50

FAS -51

FAS -52

FAS -53

FAS -54

FAS -55

FAS -56

FAS -57

FAS -58

FAS -59

FAS -60

FAS -61

FAS -62

FAS -63

FAS -64

FAS -65

FAS -66

FAS -67

FAS -68

FAS -69

FAS -70

FAS -71

FAS -72

FAS -73

FAS -74

FAS -75

FAS -76

FAS -77

FAS -78

FAS -79

FAS -80

FAS -81

FAS -82

FAS -83

FAS -84

FAS -85

FAS -86

FAS -87

FAS -88

FAS -89

FAS -90

FAS -91

FAS -92

FAS -93

FAS -94

FAS -95

FAS -96

FAS -97

FAS -98

FAS -99

FAS -100

FAS -101

FAS -102

FAS -103

FAS -104

FAS -105

FAS -106

FAS -107

FAS -108

FAS -109

FAS -110

FAS -111

FAS -112

FAS -113

FAS -114

FAS -115

FAS -116

FAS -117

FAS -118

FAS -119

FAS -120

FAS -121

FAS -122

FAS -123

FAS -124

FAS -125

FAS -126

FAS -127

FAS -128

FAS -129

FAS -130

FAS -131

FAS -132

FAS -133

FAS -134

FAS -135

FAS -136

FAS -137

FAS -138

FAS -139

FAS -140

FAS -141

FAS -142

FAS -143

FAS -144

FAS -145

FAS -146

FAS -147

FAS -148

FAS -149

FAS -150

FAS -151

FAS -152

FAS -153

FAS -154

FAS -155

FAS -156

FAS -157

FAS -158

FAS -159

FAS -160

FAS -161

FAS -162

FAS -163

FAS -164

FAS -165

FAS -166

FAS -167

FAS -168

FAS -169

FAS -170

FAS -171

FAS -172

FAS -173

FAS -174

FAS -175

FAS -176

FAS -177

FAS -178

FAS -179

FAS -180

FAS -181

FAS -182

FAS -183

FAS -184

FAS -185

FAS -186

FAS -187

FAS -188

FAS -189

FAS -190

FAS -191

FAS -192

FAS -193

FAS -194

FAS -195

FAS -196

FAS -197

FAS -198

FAS -199

FAS -200

FAS -201

FAS -202

FAS -203

FAS -204

FAS -205

FAS -206

FAS -207

FAS -208

FAS -209

FAS -210

FAS -211

FAS -212

FAS -213

FAS -214

FAS -215

FAS -216

FAS -217

FAS -218

FAS -219

FAS -220

FAS -221

FAS -222



K1

K2

INTERSTATE RTE. 104

WALKERVILLE
POP 1,631

BUTTE

SILVER BOW CO.
JEFFERSON CO.

SILVER BOW CO.
JEFFERSON CO.

G21

G22

TO BOULDER

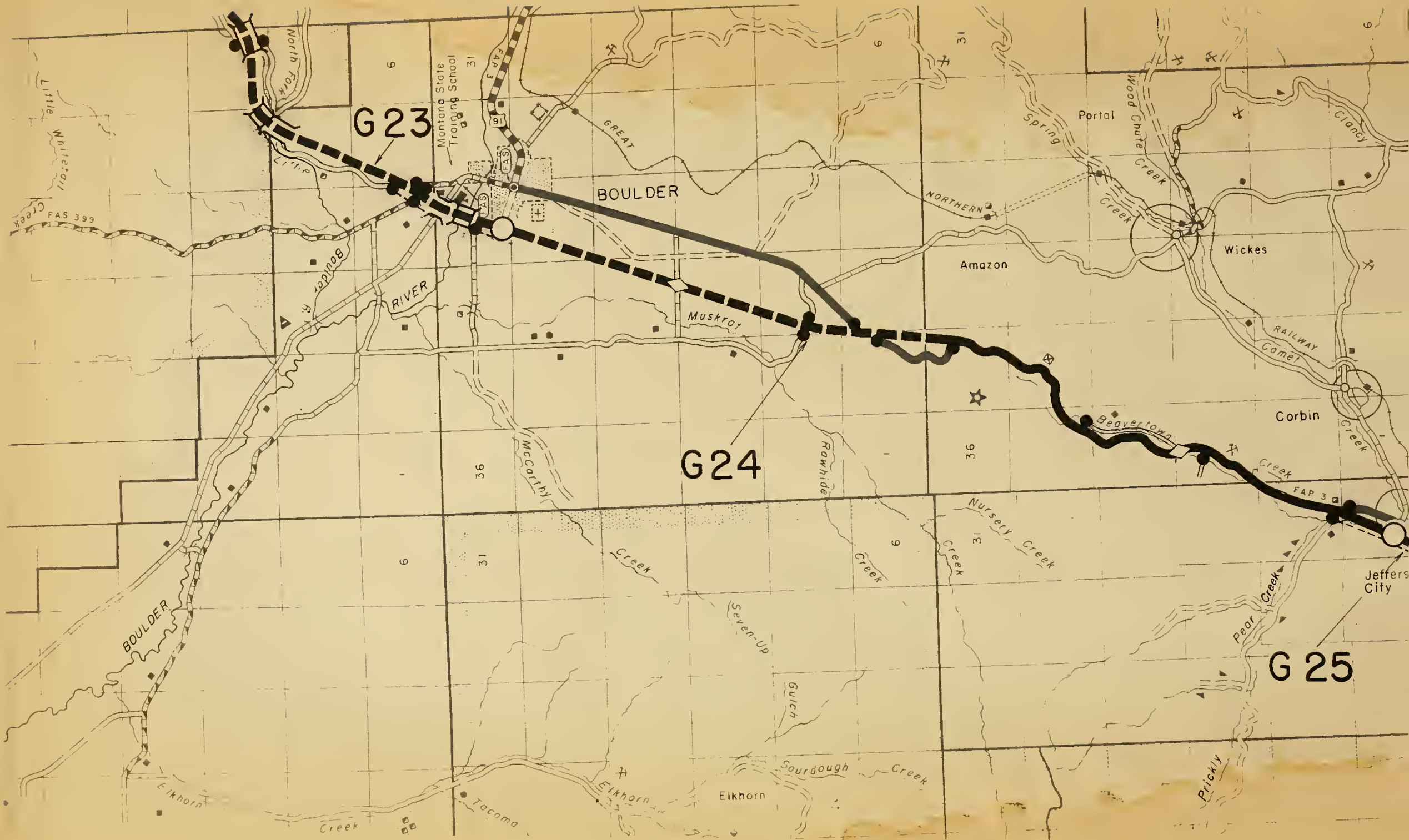
TO BUTTE

ELK PARK PASS
ELEV 6,372

N



MONTANA
INTERSTATE ROUTE 102
SHEET 3 OF 7
(INTERSTATE ROUTE 104)
(COMPLETE ROUTE ON THIS SHEET)





G 25

G 26

G 27

G 28

Corbin

Jefferson City

Alhombro

Clancy

Unionville

Helena
5,460

Seaver Park

LEWIS

JEFFERSON

CLARK

HELENA

CO.
CO.

Ascension
5,360

Clancy

Creek

Clancy

Westover
Gulch

Creek

Dutchman

GREAT

Creek

Railroad

Creek

Big

Gulch

Gulch

Lump

NORTHERN

Jackson

Gulch

Clark

Holmes
Gulch

WESTERN

ION

ION

ION

ION

ION

FAP 3

FAP 3

FAP 3

FAP 3

FAP 3

FAP 8

FAP 8

FAP 8

FAP 8

FAP 8

FAP 3

FAP 3

FAP 3

FAP 3

FAP 3

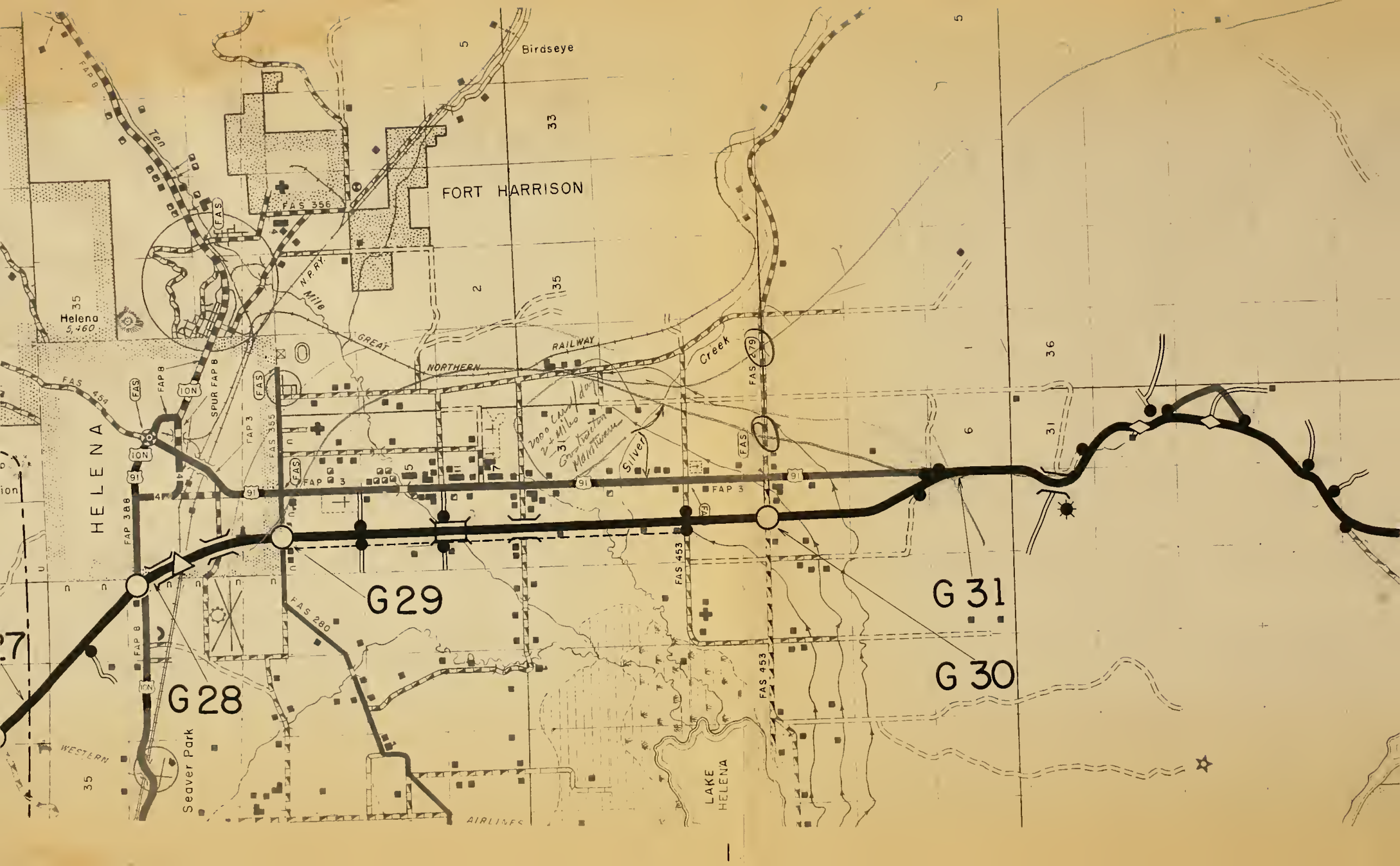
FAP 8

FAP 8

FAP 8

FAP 8

FAP 8



FORT HARRISON

Helena
5,460

HELENA

G29

G31

G30

G28

Seaver Park

LAKE
HELENA

Birdseye

GREAT
NORTHERN
RAILWAY

Creek

Silver

2000 ft. camp
2-4 miles
Great Northern
Mountain

AIRLINES

WESTERN

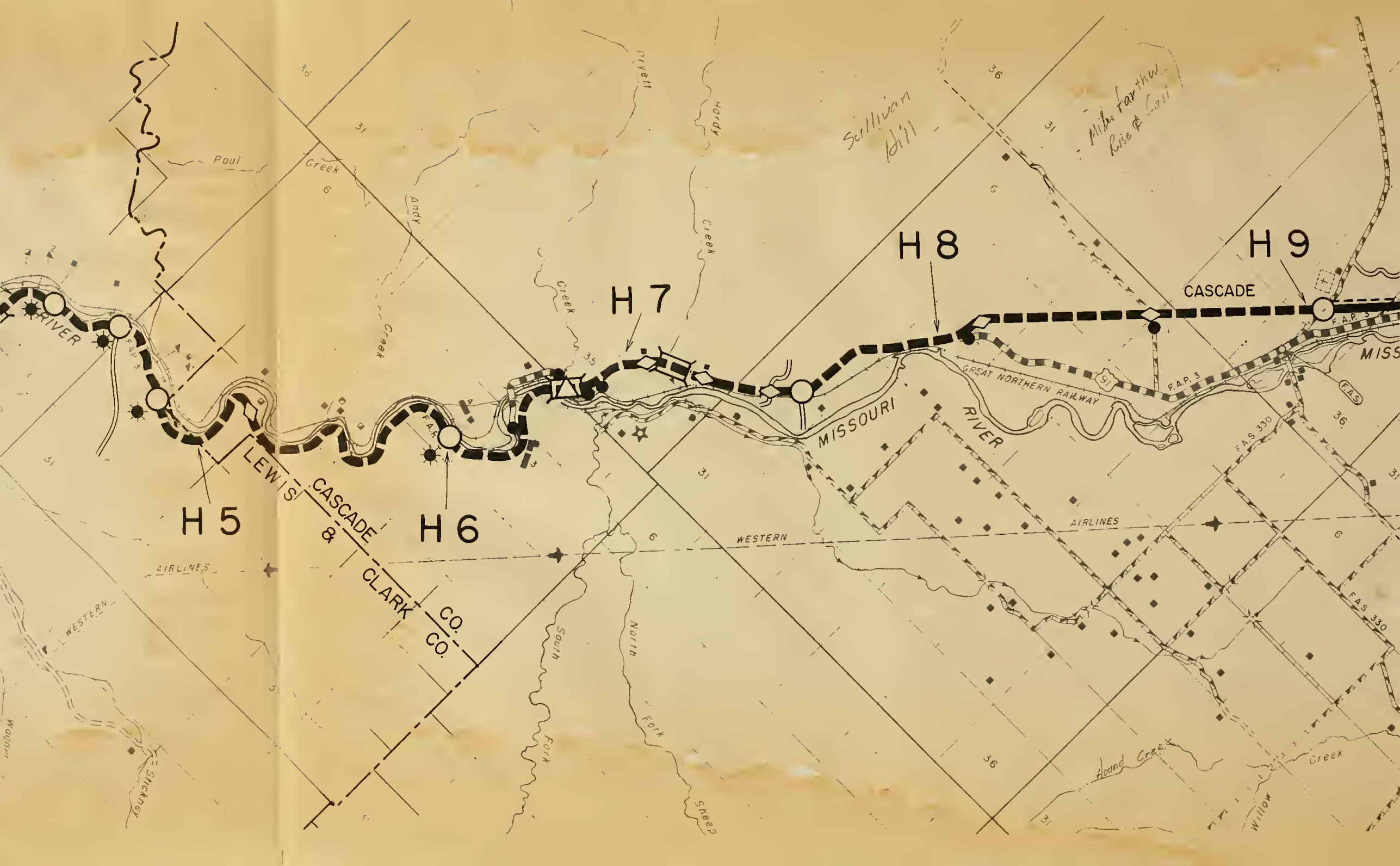


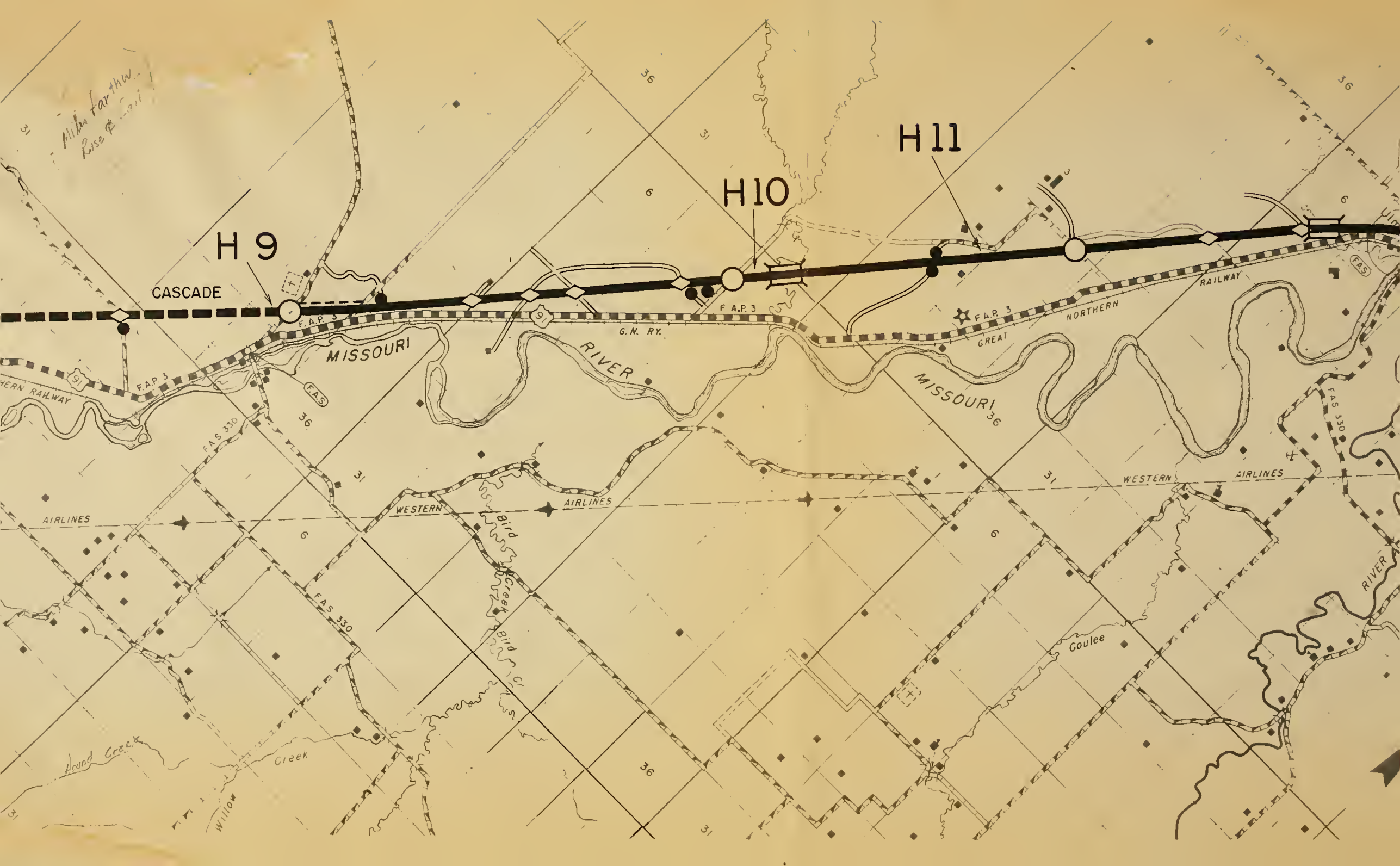
MONTANA

INTERSTATE ROUTE 102

SHEET 4 OF 7







H 9

CASCADE

H10

H11

MISSOURI

RIVER

MISSOURI

WESTERN

AIRLINES

WESTERN

AIRLINES

Coulee

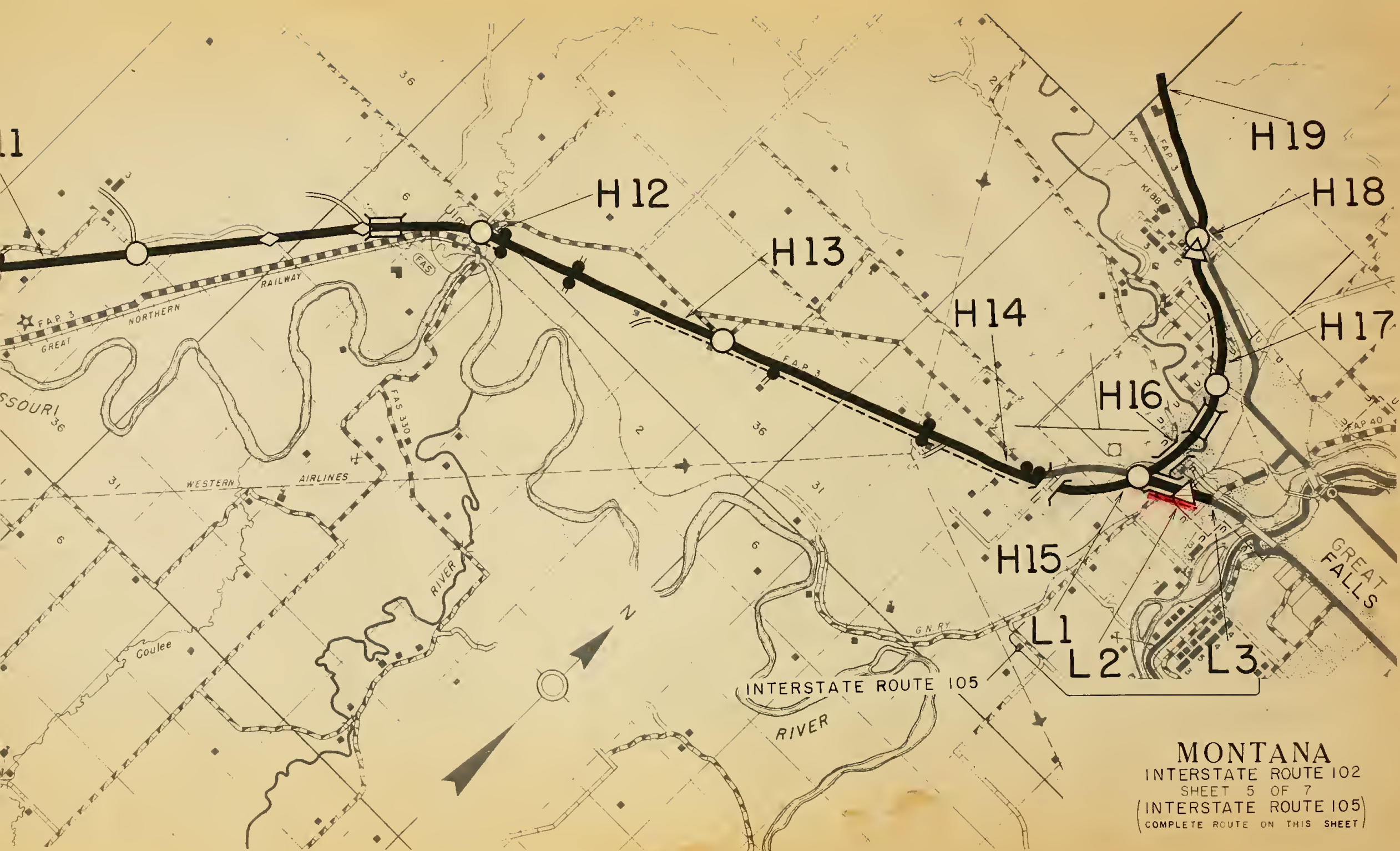
Bird Creek

Creek

Willow

Grand Creek

Miles farthw.
Rise & Fall



MONTANA
INTERSTATE ROUTE 102
SHEET 5 OF 7
(INTERSTATE ROUTE 105)
COMPLETE ROUTE ON THIS SHEET



H19

H20

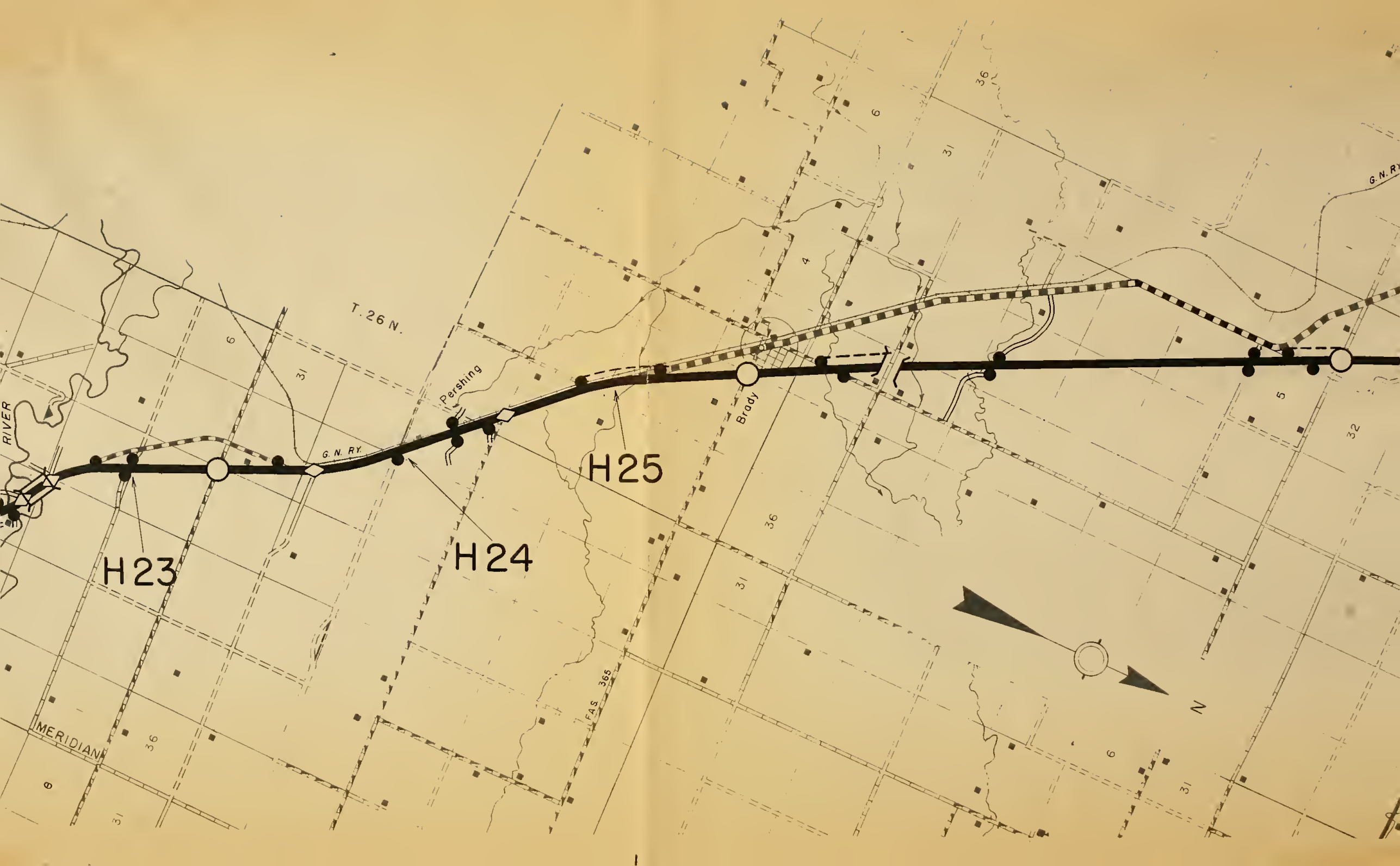
H21

CASCADE
TETON

CO
CO







H23

H24

H25

Pershing

Brady

T. 26 N.

G. N. RY.

MERIDIAN

N

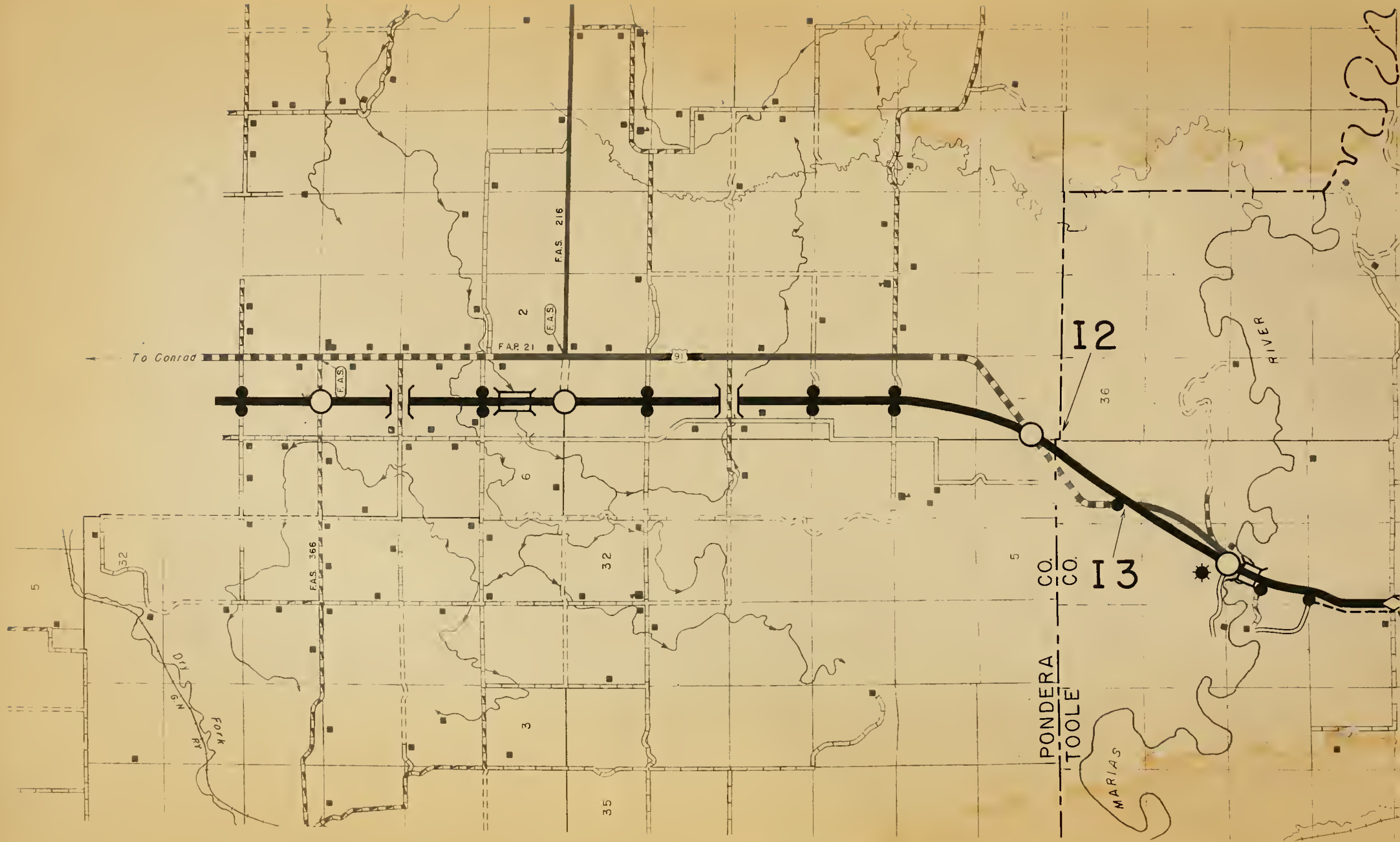


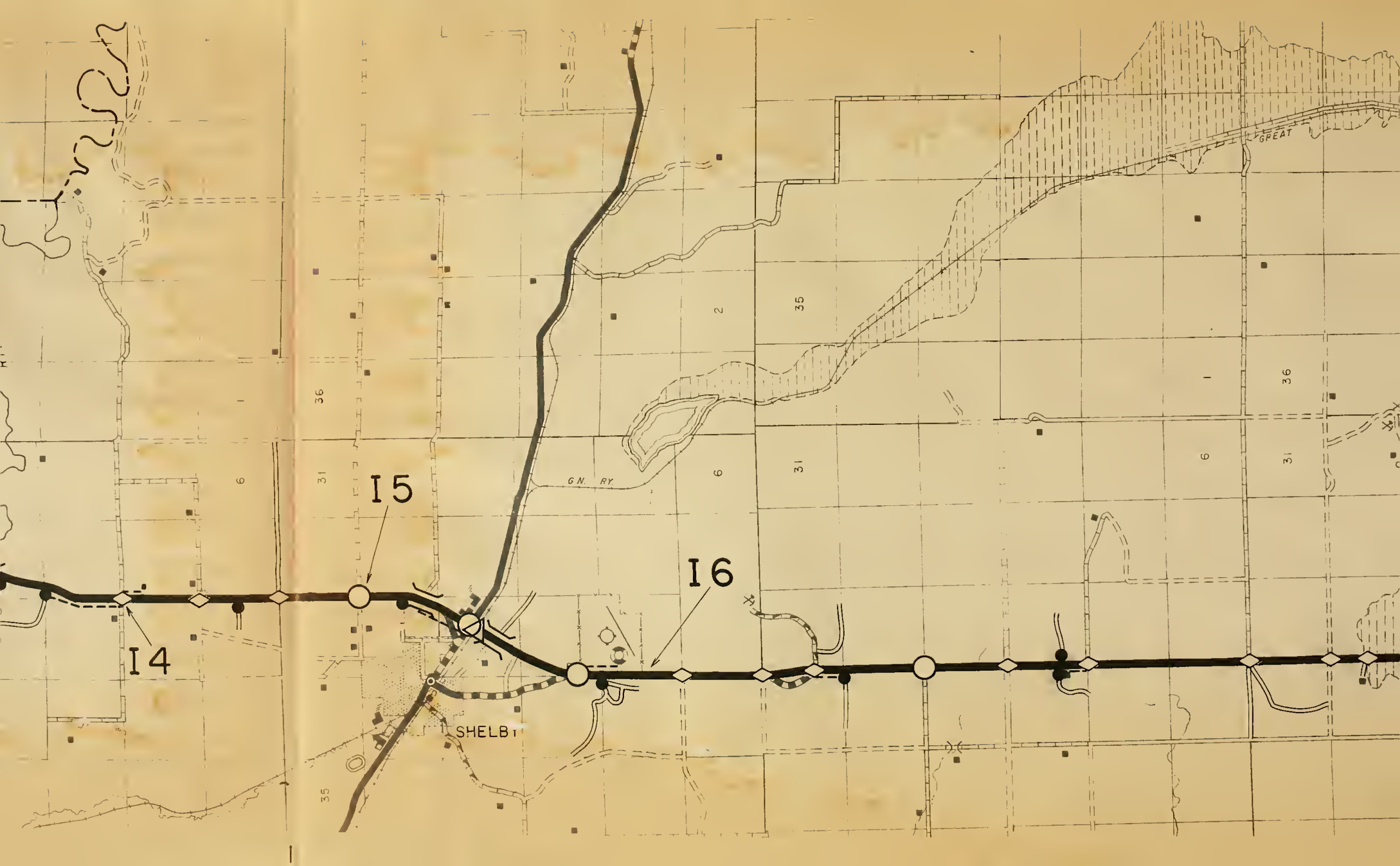
II
CONRAD

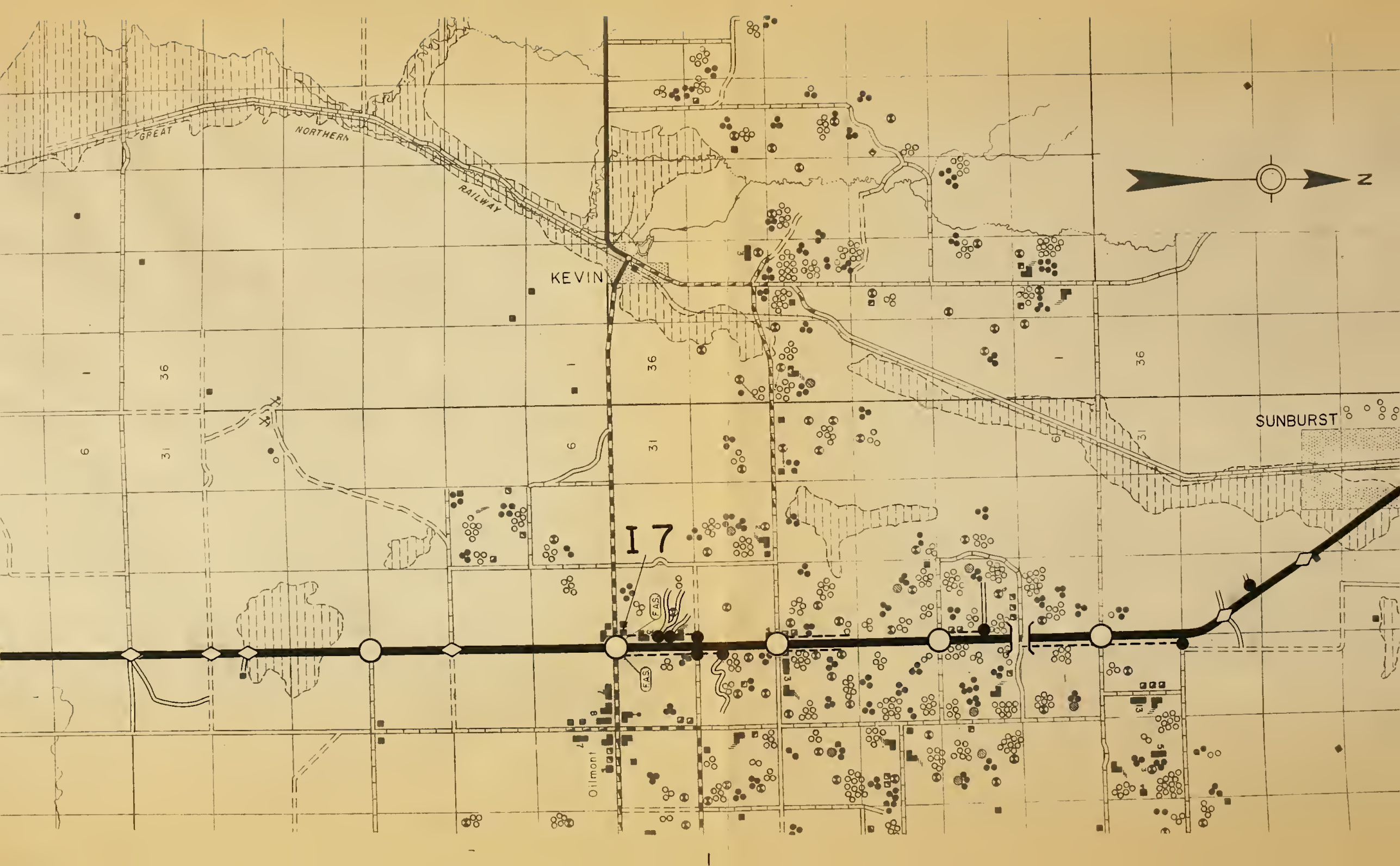
MONTANA

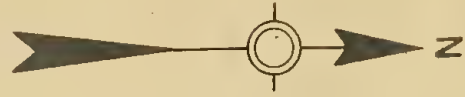
INTERSTATE ROUTE 102

SHEET 6 OF 7









SUNBURST

18

19

110

111

To Calgary

R 2 W

R 3 W

112°00'

C A N A D A
A L B E R T A

MONTANA

INTERSTATE ROUTE 102

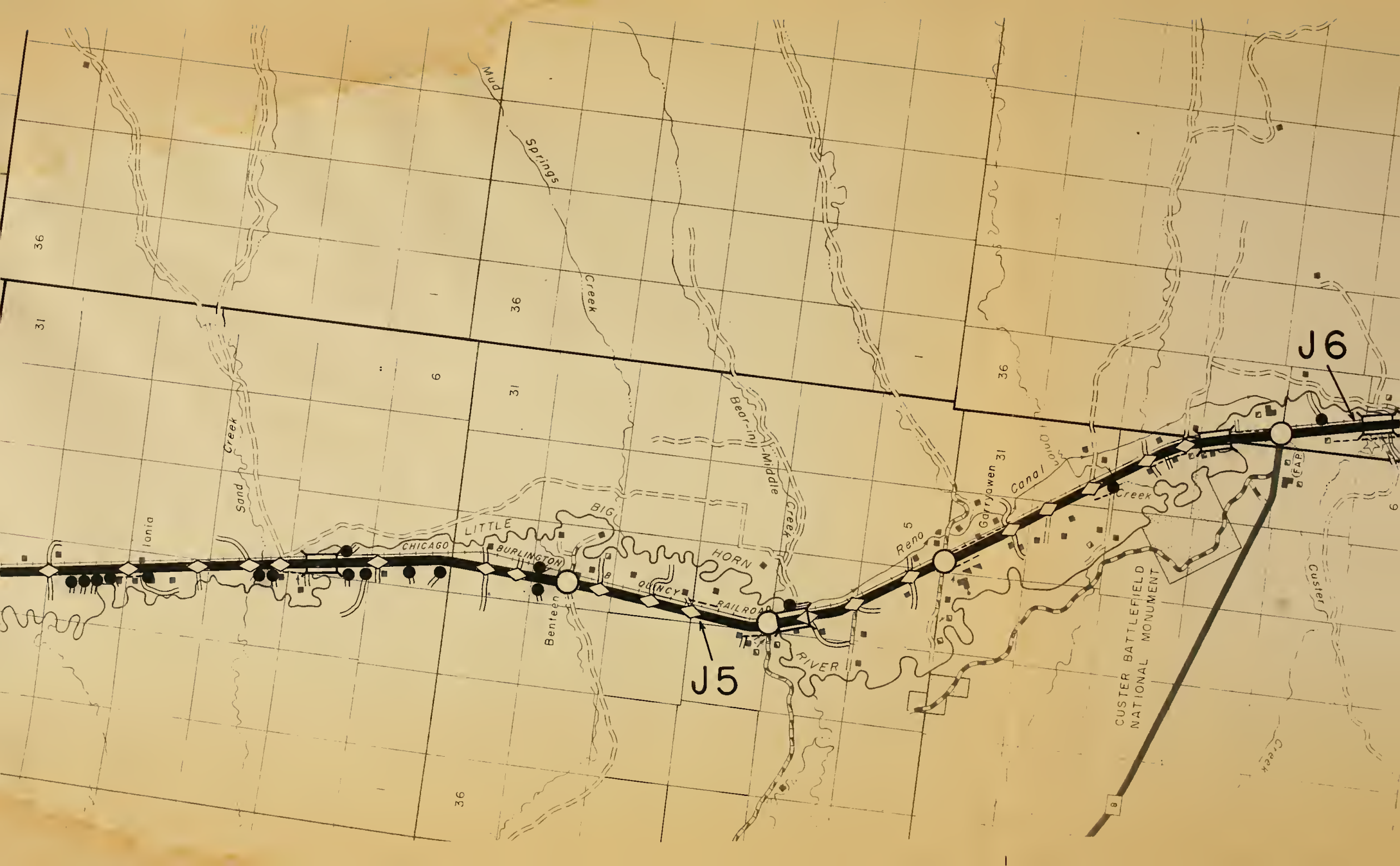
SHEET 7 OF 7

W Y O M I N G

To Ranchester, Wyoming

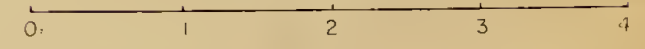








SCALE IN MILES



LEGEND FOR INTERSTATE ROUTES

- | | |
|--|---|
| APPROVED INTERSTATE LOCATION | TUNNEL |
| TENTATIVE INTERSTATE LOCATION | TOLL BRIDGE, TUNNEL, HIGHWAY OR COMBINATION |
| INTERCHANGE | FRONTAGE ROAD |
| HIGHWAY GRADE SEPARATION - NO CONNECTION | RIGHT TURN CONNECTIONS ONLY |
| RAILROAD GRADE SEPARATION | TERMINATED CROSS ROAD |
| COMBINATION HIGHWAY-RAILROAD GRADE SEPARATION | INTERSECTION AT-GRADE |
| OTHER BRIDGE | URBAN AREA BOUNDARY |
| ONE LANE STRUCTURE (STRUCTURAL PLATE PIPE CULVERT OR CONCRETE BOX) | |

MONTANA

INTERSTATE ROUTE 103

SHEET 1 OF 2





J9

J10

J11

YELLOWSTONE
BIG HORN
CO.

CO.

RAILROAD

FAP 16

Toluco

FLY

Spring

Creek

Telegraph

Creek

Creek

Rowley
Creek

CHICAGO BURLINGTON & QUINCY





MONTANA

INTERSTATE ROUTE 103

SHEET 2 OF 2

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 1 of 16

STATE MONTANA

FAI ROUTE NUMBER 101

Section	A1-A2	A2-A3	A3-A4	A4-A5	A5-A6	A6-A7	A7-A8	A8-A9	A9-A10	A10-A11	A11-A12	A12-A13	A13-A14	A14-A15	A15-A16	A16-A17	A17-A18
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	E	E	E	E	E	N	N	E	N	E	N	E	N	E	N	N	N
Length, miles	4.3	6.7	10.9	5.6	5.5	1.2	0.2	10.2	5.0	4.0	5.4	7.5	5.0	3.7	2.9	2.1	0.2
Code	22	22	22	22	22	23	23	22	23	22	23	22	23	22	23	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	70	99	108	87	38	41	46	44	116	14	163	79	182	5	39	21	94
2. Right-of-Way	1	50	150	1	48	26	-	31	350	16	16	48	30	-	55	7	-
3. Clear & grub; demolition	39	20	33	11	17	5	-	42	10	15	81	21	80	-	3	3	-
4. Utility adjustments	1	6	19	19	2	2	-	-	11	-	-	7	6	-	-	-	-
5. Grade & drain; minor structures	583	947	1155	807	331	314	1	244	232	64	297	567	449	-	188	287	-
6. Base; surfacing; shoulders	498	343	612	495	292	63	1	526	256	212	284	435	254	96	133	112	-
7. R. R. grade separations	223	250	-	-	-	-	-	-	-	-	435	200	380	-	-	-	-
8. Highway grade separations without ramps	-	-	-	-	108	-	-	-	77	-	72	15	-	-	-	-	-
9. Interchanges, complete	-	204	353	326	-	192	-	-	237	-	166	167	157	-	442	-	-
10. Other bridges; tunnels	89	200	-	97	-	225	950	-	1531	-	2000	140	2400	-	-	-	1950
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	21	46	67	49	45	45	-	110	58	7	47	84	68	-	53	45	-
13. Roadside improvement	-	-	12	-	-	-	-	-	-	-	15	-	-	-	-	-	-
14. All other items	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Subtotal, lines 3 to 14	1454	2058	2251	1804	795	846	952	922	2412	298	3397	1636	3794	96	819	447	1950
16. Construction Engineering & Contingencies, 10% of Line 15	145	206	225	180	80	85	95	92	241	30	340	164	379	10	82	45	195
17. Total Estimated Cost	1670	2413	2734	2072	961	998	1093	1089	3119	358	3916	1927	4385	111	995	520	2239

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 2 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	A18-A19	A19-A20	A20-A21	A21-A22	A22-A23	A23-A24	A24-A25	A25-A26	A26-A27	A27-A28	A28-A29	A29-A30	A30-A31	A31-A32	A32-A33	A33-A34	A34-A35
Class: Rural or Urban	R	R	R	R	R	R	R	U	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	N	N	E	N	E	N	N	N	N	E	E	E	N	N	E	N
Length, miles	1.7	0.2	1.4	1.2	5.1	4.5	9.4	2.3	1.5	8.0	5.5	10.8	5.7	5.8	5.6	2.6	4.2
Code	23	23	23	22	23	22	23	23	23	23	22	22	22	23	23	22	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	36	120	28	21	55	73	210	116	44	375	71	197	124	157	256	47	175
2. Right-of-Way	7	1	5	10	74	64	132	907	6	153	41	106	47	13	15	9	36
3. Clear & grub; demolition	20	-	11	3	-	-	-	-	-	12	6	-	6	10	8	2	3
4. Utility adjustments	-	-	-	2	10	33	4	9	45	29	3	20	38	2	10	-	-
5. Grade & drain; minor structures	511	-	142	275	411	359	1442	553	207	1205	537	1788	1517	739	2695	346	671
6. Base; surfacing; shoulders	177	-	143	126	288	661	1391	388	253	1358	596	1266	673	655	591	318	472
7. R. R. grade separations	-	-	-	-	-	-	240	-	-	685	-	-	-	999	590	-	2030
8. Highway grade separations without ramps	27	-	-	-	132	53	242	343	-	955	23	73	-	23	-	-	45
9. Interchanges, complete	-	-	266	-	246	347	895	1064	358	438	268	873	311	356	284	276	301
10. Other bridges; tunnels	-	2500	-	-	-	-	-	-	-	2970	-	-	-	420	1080	-	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	12	-	17	24	49	75	117	38	52	154	28	93	47	60	84	26	87
13. Roadside improvement	-	-	-	15	-	-	-	20	-	-	15	-	-	-	-	15	-
14. All other items	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	42
15. Subtotal, lines 3 to 14	747	2500	579	445	1136	1528	4373	2415	915	7806	1476	4113	2592	3264	5342	983	3651
16. Construction Engineering & Contingencies, 10% of Line 15	75	250	58	45	114	153	437	242	92	781	148	411	259	326	534	98	365
17. Total Estimated Cost	865	2871	670	521	1379	1818	5152	3680	1057	9115	1736	4827	3022	3760	6147	1137	4227

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 3 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	A35-A36	A36-A37	A37-A38	A38-B1	B1-B2	B2-B3	B3-B4	B4-B5	B5-B6	B6-B7	B7-B8	B8-B9	B9-B10	B10-B11	B11-B12	B12-B13	B13-B14
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	U	R	R
Location: Existing, new, or toll	E	E	E	N	E	N	N	N	N	E	N	N	E	E	N	N	N
Length, miles	4.2	6.5	5.6	1.6	4.8	8.8	3.4	3.1	6.9	3.6	3.6	1.6	7.0	3.9	3.5	7.0	7.1
Code	22	22	22	23	22	23	23	23	23	22	23	23	22	22	23	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	39	87	93	124	60	98	23	36	73	34	53	55	93	73	268	233	229
2. Right-of-Way	12	45	19	2	24	90	82	26	49	14	3	3	17	-	472	334	20
3. Clear & grub; demolition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	99
4. Utility adjustments	-	-	-	-	1	1	3	1	6	10	3	6	7	-	13	1	26
5. Grade & drain; minor structures	225	336	630	973	500	628	142	174	488	95	323	332	808	150	1798	2943	3938
6. Base; surfacing; shoulders	521	817	595	147	293	536	207	209	408	213	378	168	550	210	509	552	551
7. R. R. grade separations	-	-	350	750	-	-	-	-	133	-	-	308	238	-	1540	-	-
8. Highway grade separations without ramps	45	-	-	-	-	219	-	90	83	-	-	-	-	-	524	482	67
9. Interchanges, complete	-	609	279	691	211	454	-	198	238	292	342	294	282	1033	1019	674	-
10. Other bridges; tunnels	-	-	-	-	148	144	127	42	85	85	55	-	-	-	-	-	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	26	60	84	31	98	65	5	37	74	9	6	40	48	84	169	188	87
13. Roadside improvement	-	-	-	-	-	-	-	-	15	-	-	-	-	-	20	-	-
14. All other items	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-
15. Subtotal, lines 3 to 14	817	1822	1938	2592	1251	2047	484	751	1530	704	1107	1148	1933	1519	5592	4847	4768
16. Construction Engineering & Contingencies, 10% of Line 15	82	182	194	259	125	205	48	75	153	70	111	115	193	152	559	485	477
17. Total Estimated Cost	950	2136	2244	2977	1460	2440	637	888	1805	822	1274	1321	2236	1744	6891	5899	5494

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 4 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	B14-B15	B15-B16	B16-B17	B17-B18	B18-C1	C1-C2	C2-C3	C3-C4	C4-C5	C5-C6	C6-C7	C7-C8	C8-C9	C9-C10	C10-C11	C11-C12	C12-C13
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	U	R	R	R	R	R	U
Location: Existing, new, or toll	N	N	E	N	N	N	N	N	N	N	N	N	E	E	E	N	N
Length, miles	9.3	3.5	2.9	10.8	3.8	2.3	3.7	10.8	10.3	9.1	1.0	5.6	6.8	5.1	3.6	2.2	0.8
Code	23	23	22	23	23	23	23	23	23	23	23	23	22	22	22	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	176	36	28	223	45	22	105	295	256	216	60	89	186	92	58	82	27
2. Right-of-Way	52	7	7	22	25	17	59	31	99	185	84	222	90	37	31	83	256
3. Clear & grub; demolition	-	-	-	11	-	-	-	5	4	-	-	8	12	-	-	-	-
4. Utility adjustments	2	-	4	3	-	2	-	3	3	7	7	5	36	32	26	-	1
5. Grade & drain; minor structures	1246	527	169	2632	419	255	454	1439	1550	1463	133	701	2328	923	376	296	186
6. Base; surfacing; shoulders	991	206	208	1141	247	161	574	1572	1529	1362	150	856	680	622	482	324	135
7. R. R. grade separations	510	-	-	-	-	-	-	983	532	280	300	-	-	-	-	-	-
8. Highway grade separations without ramps	83	-	-	88	20	32	36	289	457	849	-	238	-	-	-	241	210
9. Interchanges, complete	576	-	188	446	184	-	437	786	553	447	625	-	626	247	284	804	-
10. Other bridges; tunnels	146	-	-	164	-	-	637	896	592	-	-	-	-	-	-	-	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	109	11	24	167	44	13	53	172	124	83	26	19	153	92	30	44	31
13. Roadside improvement	-	-	-	-	15	-	-	-	-	-	15	-	30	-	-	-	6
14. All other items	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	-	-
15. Subtotal, lines 3 to 14	3663	744	593	4652	929	463	2191	6145	5344	4491	1256	1869	3865	1916	1198	1709	569
16. Construction Engineering & Contingencies, 10% of Line 15	366	74	59	465	93	46	219	615	534	449	126	187	387	192	120	171	57
17. Total Estimated Cost	4257	861	687	5362	1092	548	2574	7086	6233	5341	1526	2367	4528	2237	1407	2045	909

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 5 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	C13-C14	C14-C15	C15-D1	D1-D2	D2-D3	D3-D4	D4-D5	D5-D6	D6-D7	D7-D8	D8-D9	D9-D10	D10-D11	D11-D12	D12-D13	D13-D14	D14-D15
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	N	E	E	N	E	E	E	N	E	N	N	N	N	N	N	N
Length, miles	2.4	5.3	13.2	13.6	3.5	8.6	11.4	4.8	3.1	8.2	7.8	9.5	5.5	6.1	3.6	8.8	4.6
Code	23	23	22	22	23	22	22	22	23	22	23	23	23	23	23	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	112	78	65	51	80	89	85	46	112	70	219	116	102	138	47	230	128
2. Right-of-Way	386	5	49	23	56	209	123	81	9	75	107	40	120	152	139	1626	511
3. Clear & grub; demolition	-	-	-	-	1	2	5	1	2	-	3	-	-	-	-	-	-
4. Utility adjustments	3	2	-	218	5	41	1	25	-	29	18	-	7	2	2	-	-
5. Grade & drain; minor structures	334	257	85	106	508	504	701	338	435	828	2343	1224	401	554	292	1013	501
6. Base; surfacing; shoulders	405	773	880	530	217	657	835	346	328	578	890	542	826	929	555	1460	630
7. R. R. grade separations	-	-	-	-	-	-	-	-	400	-	-	-	-	280	-	-	-
8. Highway grade separations without ramps	254	29	-	-	294	-	-	-	28	-	238	30	224	581	-	400	528
9. Interchanges, complete	554	498	183	148	230	395	-	206	-	-	595	449	355	444	-	1532	838
10. Other bridges; tunnels	668	-	42	-	342	85	191	-	1100	-	370	85	218	-	127	255	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	95	62	100	60	66	63	25	33	33	15	107	75	54	92	11	129	142
13. Roadside improvement	15	-	22	-	-	-	15	-	-	-	-	15	-	-	-	-	25
14. All other items	-	-	50	-	-	-	-	-	-	-	-	-	42	-	-	-	-
15. Subtotal, lines 3 to 14	2328	1621	1362	1062	1663	1747	1773	949	2326	1450	4564	2420	2127	2882	987	4789	2664
16. Construction Engineering & Contingencies, 10% of Line 15	233	162	136	106	166	175	177	95	233	145	456	242	213	288	99	479	266
17. Total Estimated Cost	3059	1866	1612	1242	1965	2220	2158	1171	2680	1740	5346	2818	2562	3460	1272	7124	3569

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 6 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	D15-D16	D16-D17	D17-D18	D18-D19	D19-D20	D20-D21	D21-D22	D22-D23	D23-D24	D24-D25	D25-D26	D26-D27	D27-E1	E1-E2	E2-E3	E3-E4	E4-E5
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	N	N	N	E	E	E	N	N	N	N	N	N	E	E	N	N
Length, miles	3.6	6.8	9.1	9.6	6.8	5.3	8.0	6.1	1.8	1.3	6.9	6.4	8.7	7.1	7.9	2.4	3.7
Code	23	23	23	23	22	22	22	23	23	23	23	23	23	22	22	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	217	173	80	112	47	39	55	107	14	38	127	82	88	44	83	42	87
2. Right-of-Way	522	123	33	75	37	6	37	26	4	3	18	46	35	53	58	12	19
3. Clear & grub; demolition	-	-	-	-	4	2	-	-	-	5	-	-	-	-	-	-	5
4. Utility adjustments	7	6	-	2	96	29	80	7	-	2	8	2	7	85	90	10	-
5. Grade & drain; minor structures	477	1776	745	484	244	220	262	534	182	313	565	536	413	214	473	135	156
6. Base; surfacing; shoulders	529	762	564	604	494	372	564	386	112	145	438	397	547	497	579	150	215
7. R. R. grade separations	-	-	-	168	-	-	-	210	-	-	175	-	-	-	140	-	266
8. Highway grade separations without ramps	447	228	41	397	-	-	-	-	-	-	-	301	127	-	-	-	137
9. Interchanges, complete	494	757	198	412	-	-	215	372	-	285	382	208	416	-	184	403	-
10. Other bridges; tunnels	2400	-	64	170	127	180	-	650	-	-	1010	212	233	106	218	-	1000
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	115	67	53	91	12	16	19	74	3	39	49	57	82	9	51	167	42
13. Roadside improvement	-	-	-	15	-	-	4	-	-	-	15	-	-	-	-	-	-
14. All other items	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Subtotal, lines 3 to 14	4511	3596	1665	2343	977	819	1144	2233	297	789	2642	1713	1825	911	1735	865	1821
16. Construction Engineering & Contingencies, 10% of Line 15	451	360	167	234	98	82	114	223	30	79	264	171	183	91	174	87	182
17. Total Estimated Cost	5701	4252	1945	2764	1159	946	1350	2589	345	909	3051	2012	2131	1099	2050	1006	2109

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 7 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	E5-E6	E6-E7	E7-E8	E8-E9	E9-E10	E10-E11	E11-E12	E12-E13	E13-E14	E14-E15	E15-F1	F1-F2	F2-F3	F3-F4	F4-F5	F5-F6	F6-F7
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	N	N	N	N	N	N	N	N	E	E	E	E	E	N	E	N
Length, miles	8.3	7.5	5.9	6.5	7.8	1.5	3.5	5.9	2.4	5.1	8.2	7.2	2.7	1.6	5.5	4.4	3.5
Code	23	23	23	23	23	23	23	23	23	22	22	22	22	22	23	22	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	83	69	70	49	138	89	109	35	11	71	60	71	17	9	54	24	55
2. Right-of-Way	39	62	11	26	3	7	192	47	11	6	8	20	6	4	27	28	3
3. Clear & grub; demolition	-	-	5	-	5	6	-	-	-	-	-	-	-	-	-	-	-
4. Utility adjustments	50	25	8	-	-	25	14	-	-	-	112	80	-	1	2	64	-
5. Grade & drain; minor structures	420	386	487	264	515	166	303	203	93	710	389	258	152	68	235	145	137
6. Base; surfacing; shoulders	483	484	620	414	454	211	496	344	140	419	549	476	178	107	332	291	209
7. R. R. grade separations	-	-	-	-	694	370	-	-	-	-	-	-	-	-	150	-	-
8. Highway grade separations without ramps	132	295	29	147	-	-	452	150	-	29	-	-	-	-	173	-	127
9. Interchanges, complete	340	177	-	176	182	397	916	-	-	277	-	-	-	-	187	-	355
10. Other bridges; tunnels	212	-	280	-	935	630	-	-	-	-	180	650	-	-	-	-	270
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	81	79	38	30	50	32	48	29	3	37	15	8	14	3	54	9	38
13. Roadside improvement	15	-	-	-	30	10	10	-	-	-	-	15	-	-	-	-	-
14. All other items	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-
15. Subtotal, lines 3 to 14	1733	1446	1467	1031	2865	1847	2281	726	236	1472	1245	1487	344	179	1133	509	1136
16. Construction Engineering & Contingencies, 10% of Line 15	173	145	147	103	287	185	228	73	24	147	125	149	34	18	113	51	114
17. Total Estimated Cost	2028	1722	1695	1209	3293	2128	2810	881	282	1696	1438	1727	401	210	1327	612	1308

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 8 of 16

STATE MONTANAFAI ROUTE NUMBER 101

Section	F7-F8	F8-F9	F9-F10	F10-F11	F11-F12	F12-F13	F13-F14	F14-F15	F15-F16	F16-F17	F17-F18	F18-F19	F19-F20	F20-F21	SUBTOTAL		TOTAL FOR ROUTE
Class: Rural or Urban	R	R	R	R	R	R	R	U	R	R	R	R	R	R	RURAL	URBAN	
Location: Existing, new, or toll	N	N	N	N	N	N	N	N	N	N	E	E	N	E	xxx	xxx	
Length, miles	2.5	3.8	2.8	2.8	4.8	4.2	6.3	1.3	2.4	1.2	16.0	4.7	4.9	6.1	693.8	8.9	702.7
Code	23	23	23	23	23	23	23	23	23	23	22	22	23	22	xxx	xxx	xxx
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	25	27	23	37	33	80	64	59	65	35	109	23	56	38	11379	530	11909
2. Right-of-Way	3	10	12	7	9	9	12	410	1	7	20	15	41	14	8733	2129	10862
3. Clear & grub; demolition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	653	-	653
4. Utility adjustments	-	-	4	-	-	-	12	22	2	3	-	6	2	20	1671	52	1723
5. Grade & drain; minor structures	253	310	108	244	266	938	627	250	570	119	708	136	318	170	74625	2920	77545
6. Base; surfacing; shoulders	263	221	163	299	279	441	323	149	268	74	1184	329	316	403	60396	1331	61727
7. R. R. grade separations	-	-	-	-	-	-	-	-	-	180	-	-	-	-	13149	1840	14989
8. Highway grade separations without ramps	-	15	-	223	-	-	22	220	-	-	-	-	-	-	11242	1297	12539
9. Interchanges, complete	-	-	176	-	-	-	181	332	453	207	186	-	234	176	34011	3040	37051
10. Other bridges; tunnels	-	-	-	-	140	280	140	185	-	125	127	-	265	-	33760	185	33945
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	5	17	23	14	9	17	30	58	26	22	47	8	34	25	6703	322	7025
13. Roadside improvement	-	-	-	-	-	-	-	15	-	-	15	-	-	-	353	76	429
14. All other items	-	-	-	-	-	-	-	-	42	-	-	-	-	-	428	-	428
15. Subtotal, lines 3 to 14	521	563	474	780	694	1676	1335	1231	1361	730	2267	479	1169	794	236991	11063	248054
16. Construction Engineering & Contingencies, 10% of Line 15	52	56	47	78	69	168	134	123	136	73	227	48	117	79	23704	1107	24811
17. Total Estimated Cost	601	656	556	902	805	1933	1545	1823	1563	845	2623	565	1383	925	280807	14,829	295636

Signatures:

Deputy State Highway Engineer

Date

BPR Division Engineer

Date

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 9 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Section	G1-G2	G2-G3	G3-G4	G4-G5	G5-G6	G6-G7	G7-G8	G8-G9	G9-G10	G10-G11	G11-G12	G12-G13	G13-G14	G14-G15	G15-G16	G16-G17	G17-G18
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	E	N	E	N	E	N	N	E	N	N	N	N	N	E	N	N
Length, miles	1.6	11.2	4.4	5.9	1.9	12.7	8.0	10.2	3.4	6.5	12.7	9.1	5.7	3.3	5.5	10.2	4.7
Code	23	22	23	22	23	22	23	23	22	23	23	23	23	23	22	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	36	56	52	40	27	70	69	93	16	88	66	97	63	13	73	72	62
2. Right-of-Way	2	11	4	37	2	84	4	41	38	87	45	19	31	22	14	40	8
3. Clear & grub; demolition	-	-	-	-	-	-	2	16	4	6	-	8	12	-	-	-	-
4. Utility adjustments	2	11	2	14	-	12	-	6	5	-	-	13	-	-	-	5	-
5. Grade & drain; minor structures	149	391	387	195	137	561	485	933	91	495	337	835	461	100	674	755	598
6. Base; surfacing; shoulders	106	742	294	398	136	839	466	594	225	383	650	466	292	169	535	458	403
7. R. R. grade separations	275	-	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Highway grade separations without ramps	-	-	-	-	-	-	-	-	-	-	-	-	340	-	-	15	-
9. Interchanges, complete	177	-	187	189	199	-	188	-	-	525	320	183	189	-	272	211	257
10. Other bridges; tunnels	-	-	-	-	66	-	260	380	-	320	42	490	-	-	-	-	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	31	13	50	29	24	25	33	18	6	57	33	35	11	10	47	50	27
13. Roadside improvement	-	-	-	-	-	15	-	-	-	-	-	-	15	-	-	-	-
14. All other items	-	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-
15. Subtotal, lines 3 to 14	740	1157	1090	825	562	1452	1434	1947	331	1828	1382	2030	1320	279	1528	1494	1285
16. Construction Engineering & Contingencies, 10% of Line 15	74	116	109	83	56	145	143	195	33	183	138	203	132	28	153	149	129
17. Total Estimated Cost	852	1340	1255	985	647	1751	1650	2276	418	2186	1631	2349	1546	342	1768	1755	1484

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 10 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Section	G18-G19	G19-G20	G20-B11	B11-B12	B12-G21	G21-G22	G22-G23	G23-G24	G24-G25	G25-G26	G26-G27	G27-G28	G28-G29	G29-G30	G30-G31	G31-G32	G32-H1
Class: Rural or Urban	R	R	R	U	R	R	R	R	R	R	R	R	U	R	R	R	R
Location: Existing, new, or toll	E	E	E	N	N	N	N	N	E	E	E	E	N	N	N	E	E
Length, miles	4.3	1.2	3.5	3.5	1.2	3.8	20.4	5.4	7.1	10.5	3.8	2.2	1.8	5.9	2.3	8.9	6.0
Code	22	22	22	23	23	23	23	23	22	22	22	22	23	23	23	22	22
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	34	66				129	547	52	150	97	71	50	165	103	22	160	40
2. Right-of-Way	5	35				125	28	47	54	149	10	2	77	78	8	10	10
3. Clear & grub; demolition	-	-				16	405	-	60	18	18	-	-	-	-	63	5
4. Utility adjustments	-	-				8	20	-	14	42	2	1	10	3	-	-	-
5. Grade & drain; minor structures	252	180				1829	8004	259	1954	865	828	133	348	598	130	2019	330
6. Base; surfacing; shoulders	257	127				305	1965	286	700	628	235	130	252	840	322	757	319
7. R. R. grade separations	-	730				280	-	-	-	-	200	-	1750	-	-	-	-
8. Highway grade separations without ramps	-	-				175	404	132	-	137	-	-	515	223	-	28	-
9. Interchanges, complete	185	296				-	323	207	291	215	152	779	478	302	-	340	160
10. Other bridges; tunnels	-	-				-	131	138	-	42	-	-	-	127	-	-	-
11. Walls	-	-				-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	23	41				81	134	54	68	69	49	4	85	55	7	71	29
13. Roadside improvement	-	-				-	-	-	30	-	-	-	-	-	-	15	-
14. All other items	-	-				-	-	-	-	-	-	-	-	-	-	42	-
15. Subtotal, lines 3 to 14	717	1374				2694	11386	1076	3117	2016	1484	1047	3438	2148	459	3335	843
16. Construction Engineering & Contingencies, 10% of Line 15	72	137				269	1139	108	312	202	148	105	344	215	46	334	84
17. Total Estimated Cost	828	1612				3217	13100	1283	3633	2464	1713	1204	4024	2544	535	3839	977

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 11 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Section	H1-H2	H2-H3	H3-H4	H4-H5	H5-H6	H6-H7	H7-H8	H8-H9	H9-H10	H10-H11	H11-H12	H12-H13	H13-H14	H14-H15	H15-H16	H16-H17	H17-H18
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	N	N	N	E	E	N	E	N	N	N	N	E	E	E	N	N	N
Length, miles	8.3	6.0	3.8	3.6	4.8	2.4	4.0	4.6	5.7	2.9	5.4	2.6	4.3	1.5	0.7	1.2	1.7
Code	23	23	23	22	22	23	22	23	23	23	23	22	22	22	23	23	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	419	115	92	75	156	194	34	31	43	26	42	20	33	44	13	77	47
2. Right-of-Way	122	32	23	31	7	53	17	16	25	17	48	14	19	7	7	98	50
3. Clear & grub; demolition	66	21	6	5	12	6	-	-	-	-	-	-	-	-	-	-	-
4. Utility adjustments	56	2	1	-	-	2	2	-	-	-	2	-	-	2	-	6	6
5. Grade & drain; minor structures	6074	1414	471	914	2668	1425	199	360	132	82	114	74	145	137	43	134	99
6. Base; surfacing; shoulders	707	522	184	358	476	209	230	268	337	305	314	311	327	253	118	202	247
7. R. R. grade separations	600	-	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Highway grade separations without ramps	-	-	-	-	-	-	-	-	-	-	-	-	-	92	87	-	-
9. Interchanges, complete	597	389	318	200	-	100	156	-	380	-	353	-	184	418	-	484	592
10. Other bridges; tunnels	426	-	739	-	-	2200	87	-	-	137	42	-	-	-	-	700	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	163	54	58	89	91	90	44	14	55	9	54	26	32	21	16	57	33
13. Roadside improvement	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	20	10
14. All other items	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Subtotal, lines 3 to 14	8719	2402	1922	1566	3262	4032	718	642	904	533	879	411	688	923	264	1603	987
16. Construction Engineering & Contingencies, 10% of Line 15	872	240	192	157	326	403	72	64	90	53	88	41	69	92	26	160	99
17. Total Estimated Cost	10132	2789	2229	1829	3751	4682	841	753	1062	629	1057	486	809	1066	310	1938	1183

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 12 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Section	H18-H19	H19-H20	H20-H21	H21-H22	H22-H23	H23-H24	H24-H25	H25-I1	I1-I2	I2-I3	I3-I4	I4-I5	I5-I6	I6-I7	I7-I8	I8-I9	I9-I10
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Location: Existing, new, or toll	E	E	E	E	E	E	E	N	N	N	N	E	N	E	E	E	N
Length, miles	1.4	6.5	10.5	15.8	2.7	3.3	2.8	13.1	14.6	1.3	3.4	3.1	3.6	13.5	11.5	3.5	3.7
Code	22	22	22	22	22	22	22	23	23	23	23	22	23	22	22	22	23
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	14	89	82	137	23	22	13	110	125	7	73	23	104	94	124	17	21
2. Right-of-Way	8	27	25	51	6	11	8	50	72	5	4	9	48	39	83	10	16
3. Clear & grub; demolition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Utility adjustments	-	6	3	37	2	2	11	5	2	1	2	10	10	10	40	1	13
5. Grade & drain; minor structures	51	309	357	452	66	69	74	497	531	57	271	94	48	403	513	116	189
6. Base; surfacing; shoulders	204	953	692	1127	178	218	187	798	905	81	382	206	394	897	831	231	221
7. R. R. grade separations	-	-	-	-	-	-	-	172	154	-	-	-	546	-	223	-	-
8. Highway grade separations without ramps	-	88	-	22	-	-	-	98	234	-	-	-	437	-	98	-	-
9. Interchanges, complete	-	471	525	1061	-	147	-	588	455	-	54	144	528	562	749	-	-
10. Other bridges; tunnels	-	-	-	-	210	-	-	-	207	-	770	-	-	-	-	-	-
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	4	30	106	159	27	19	5	133	91	4	38	19	159	80	128	6	7
13. Roadside improvement	-	-	15	-	-	-	-	-	15	-	-	-	-	-	-	-	-
14. All other items	42	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	-
15. Subtotal, lines 3 to 14	301	1857	1698	2858	483	455	277	2291	2594	143	1517	473	2164	1952	2582	354	430
16. Construction Engineering & Contingencies, 10% of Line 15	30	186	170	286	48	46	28	229	259	14	152	47	216	195	258	35	43
17. Total Estimated Cost	353	2159	1975	3332	560	534	326	2680	3050	169	1746	552	2532	2280	3047	416	510

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 13 of 16

STATE MONTANAFAI ROUTE NUMBER 102

Section	110-111															SUBTOTAL		TOTAL For ROUTE
																Rural	Urban	
Class: Rural or Urban	R																	
Location: Existing, new, or toll	N															xxx	xxx	
Length, miles	0.5															381.8(1)	5.3 (2)	387.1(3)
Code	24															xxx	xxx	xxx
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)													
1. Preliminary engineering	4															5057	165	5222
2. Right-of-Way	13															2121	77	2198
3. Clear & grub; demolition	-															749	-	749
4. Utility adjustments	10															404	10	414
5. Grade & drain; minor structures	27															43574	348	43922
6. Base; surfacing; shoulders	29															27929	252	28181
7. R. R. grade separations	-															3495	1750	5245
8. Highway grade separations without ramps	-															2610	515	3125
9. Interchanges, complete	-															15602	478	16080
10. Other bridges; tunnels	-															7514	-	7514
11. Walls	-															-	-	-
12. Guardrail; fencing; lighting; traffic control devices	23															3128	85	3213
13. Roadside improvement	-															150	-	150
14. All other items	-															198	-	198
15. Subtotal, lines 3 to 14	89															105353	3438	108791
16. Construction Engineering & Contingencies, 10% of Line 15	9															10535	344	10879
17. Total Estimated Cost	115															123066	4024	127090

(1) Includes 4.7 miles coincident with FAI Rte. 101

(2) Includes 3.5 miles coincident with FAI Rte. 101

(3) Includes 8.2 miles coincident with FAI Rte. 101

Signatures:

Deputy State Highway Engineer

Date

BPR Division Engineer

Date

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 14 of 16

STATE MONTANAFAI ROUTE NUMBER 103

Section	J1-J2	J2-J3	J3-J4	J4-J5	J5-J6	J6-J7	J7-J8	J8-J9	J9-J10	J10-J11	J11-J12	J12-J13	J13-J14	J14-J15	SUBTOTAL		TOTAL FOR ROUTE
Class: Rural or Urban	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RURAL	URBAN	
Location: Existing, new, or toll	E	E	E	E	E	E	N	E	N	N	N	N	N	N	xxx	xxx	
Length, miles	4.2	5.4	13.1	10.6	8.9	9.0	6.0	9.8	7.5	4.3	2.1	2.9	12.1	6.2	102.1(1)	-	102.1(1)
Code	22	22	22	22	22	22	23	22	23	23	23	23	23	23	xxx	xxx	xxx
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	56	42	102	46	60	81	111	63	56	43	21	18	217	-	916	-	916
2. Right-of-Way	9	59	110	55	1	139	167	29	9	5	2	7	25	-	617	-	617
3. Clear & grub; demolition	-	-	-	-	-	3	-	-	-	-	-	-	8	-	11	-	11
4. Utility adjustments	1	16	32	-	-	92	7	2	3	-	-	4	4	-	161	-	161
5. Grade & drain; minor structures	514	191	534	199	176	347	288	322	532	441	213	169	2336	-	6262	-	6262
6. Base; surfacing; shoulders	527	383	916	438	392	642	372	649	439	455	221	197	1368	-	7019	-	7019
7. R. R. grade separations	-	-	-	-	-	-	245	-	154	-	-	-	-	-	399	-	399
8. Highway grade separations without ramps	-	-	-	-	-	135	264	99	-	-	-	-	23	-	521	-	521
9. Interchanges, complete	-	186	390	179	567	188	457	201	-	-	-	-	639	-	2807	-	2807
10. Other bridges; tunnels	118	69	191	116	-	232	582	-	-	-	-	-	50	-	1358	-	1358
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	7	28	62	31	60	44	92	36	32	8	4	5	77	-	486	-	486
13. Roadside improvement	-	-	-	-	15	-	-	-	15	-	-	-	-	-	30	-	30
14. All other items	-	-	-	-	42	-	-	-	-	-	-	-	-	-	42	-	42
15. Subtotal, lines 3 to 14	1167	873	2125	963	1252	1683	2307	1309	1175	904	438	375	4525	-	19096	-	19096
16. Construction Engineering & Contingencies, 10% of Line 15	117	87	213	96	125	168	231	131	118	90	44	38	453	-	1911	-	1911
17. Total Estimated Cost	1349	1061	2550	1160	1438	2071	2816	1532	1358	1042	505	438	5220	-	22540	-	22540

(1) Includes 6.2 miles coincident with FAI Rte. 101

Signatures: Deputy State Highway EngineerDateBPR Division EngineerDate

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 15 of 16

STATE MONTANAFAI ROUTE NUMBER 104

Section	K1-K2														SUBTOTAL		TOTAL FOR ROUTE
Class: Rural or Urban	R														RURAL	URBAN	
Location: Existing, new, or toll	E														XXX	XXX	
Length, miles	1.1														1.1		1.1
Code	22														XXX	XXX	XXX
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	8														8	-	8
2. Right-of-Way	-														-	-	-
3. Clear & grub; demolition	-														-	-	-
4. Utility adjustments	-														-	-	-
5. Grade & drain; minor structures	-														-	-	-
6. Base; surfacing; shoulders	66														66	-	66
7. R. R. grade separations	-														-	-	-
8. Highway grade separations without ramps	-														-	-	-
9. Interchanges, complete	62														62	-	62
10. Other bridges; tunnels	-														-	-	-
11. Walls	-														-	-	-
12. Guardrail; fencing; lighting; traffic control devices	45														45	-	45
13. Roadside improvement	-														-	-	-
14. All other items	-														-	-	-
15. Subtotal, lines 3 to 14	173														173	-	173
16. Construction Engineering & Contingencies, 10% of Line 15	17														17	-	17
17. Total Estimated Cost	198														198	-	198

Signatures:

Deputy State Highway Engineer

Date

BPR Division Engineer

Date

TABLE C - COST ESTIMATE BY ROUTE SECTIONS WITH ROUTE TOTALS

Table C: Sheet 16 of 16STATE MONTANAFAI ROUTE NUMBER 105

Section	11-12	12-13														SUBTOTAL		TOTAL For ROUTE
																Rural	Urban	
Class: Rural or Urban	R	U														xxx	xxx	xxx
Location: Existing, new, or toll	E	E														xxx	xxx	xxx
Length, miles	0.8	0.2														0.8	0.2	1.0
Code	22	22														xxx	xxx	xxx
WORK CLASSIFICATION					ESTIMATED COSTS (1,000 Dollars)													
1. Preliminary engineering	50	5														50	5	55
2. Right-of-Way	12	12														12	12	24
3. Clear & grub; demolition	-	-														-	-	-
4. Utility adjustments	8	2														8	2	10
5. Grade & drain; minor structures	168	45														168	45	213
6. Base; surfacing; shoulders	146	37														146	37	183
7. R. R. grade separations	437	-														437	-	437
8. Highway grade separations without ramps	218	-														218	-	218
9. Interchanges, complete	-	-														-	-	-
10. Other bridges; tunnels	-	-														-	-	-
11. Walls	-	-														-	-	-
12. Guardrail; fencing; lighting; traffic control devices	51	11														51	11	62
13. Roadside improvement	15	2														15	2	17
14. All other items	-	-														-	-	-
15. Subtotal, lines 3 to 14	1043	97														1043	97	1140
16. Construction Engineering & Contingencies, 10% of Line 15	104	10														104	10	114
17. Total Estimated Cost	1209	124														1209	124	1333

Signatures:

Deputy State Highway Engineer

Date

BPR Division Engineer

Date

TABLE D - COST ESTIMATE BY ROUTES AND STATE TOTAL

STATE MONTANA

FAI ROUTE NUMBER Rural or Urban Length, miles	101		102		103		104		105		Subtotal		Totals
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	
	693.8	8.9	381.8(1)	5.3 (2)	102.1(3)	-	1.1	-	0.8	0.2	1179.6 (4)	14.4 (2)	
WORK CLASSIFICATION	ESTIMATED COSTS (1,000 Dollars)												
1. Preliminary engineering	11379	530	5057	165	916	-	8	-	50	5	17410	700	18110
2. Right-of-Way	8733	2129	2121	77	617	-	-	-	12	12	11483	2218	13701
3. Clear & grub; demolition	653	-	749	-	11	-	-	-	-	-	1413	-	1413
4. Utility adjustments	1671	52	404	10	161	-	-	-	8	2	2244	64	2308
5. Grade & drain; minor structures	74625	2920	43574	348	6262	-	-	-	168	45	124629	3313	127942
6. Base; surfacing; shoulders	60396	1331	27929	252	7019	-	66	-	146	37	95556	1620	97176
7. R. R. grade separations	13149	1840	3495	1750	399	-	-	-	437	-	17480	3590	21070
8. Highway grade separations without ramps	11242	1297	2610	515	521	-	-	-	218	-	14591	1812	16403
9. Interchanges, complete	34011	3040	15602	478	2807	-	62	-	-	-	52482	3518	56000
10. Other bridges; tunnels	33760	185	7514	-	1358	-	-	-	-	-	42632	185	42817
11. Walls	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Guardrail; fencing; lighting; traffic control devices	6703	322	3128	85	486	-	45	-	51	11	10413	418	10831
13. Roadside improvement	353	76	150	-	30	-	-	-	15	2	548	78	626
14. All other items	428	-	198	-	42	-	-	-	-	-	668	-	668
15. Subtotal, lines 3 to 14	236991	11063	105353	3438	19096	-	173	-	1043	97	362656	14598	377254
16. Construction Engineering & Contingencies - 10% line 15	23704	1107	10535	344	1911	-	17	-	104	10	36271	1461	37732
17. Total Estimated Cost	280807	14829	123066	4024	22540	-	198	-	1209	124	427820	18977	446797
18. Route Total, Rural plus Urban	295636		127090		22540		198		1333		xxx		xxx

- (1) Includes 4.7 miles coincident with FAI Rte. 101
 (2) Includes 3.5 miles coincident with FAI Rte. 101
 (3) Includes 6.2 miles coincident with FAI Rte. 101
 (4) Includes 10.9 miles coincident with FAI Rte. 101
 (5) Includes 14.4 miles coincident with FAI Rte. 101

Signatures: _____

Deputy State Highway Engineer

Date _____

BPR Division Engineer

Date _____

TABLE E - WORK EXPECTED TO BE FINANCED WITH FUNDS OTHER THAN

FEDERAL-AID INTERSTATE AND STATE MATCHING FUNDS

STATE MONTANA

Source of Funds	FAI Route Number	Section	Estimated Cost From Table C (1,000 Dollars)
Federal-Aid Primary	102	110-111	115
Subtotals: a - Other Federal Funds	xxx	xxx	115
b - Other Public Funds	xxx	xxx	---
c - Bond Financing	xxx	xxx	---
Total			115

Signatures:

Deputy State Highway Engineer

BPR Division Engineer

Date

Date

